

**ECHOSTAR**

go beyond the box.

# Ultra Slim Box

## HDT-610R



# User Guide



**HDMI**

DOLBY  
DIGITAL PLUS

**Freeview** +HD





## IMPORTANT SAFETY INFORMATION!

Read these instructions carefully before using the product.

### Install Safely

- Unplug the power adaptor from the power socket during installation and follow all connection instructions.
- The power adaptor must remain easy to unplug from the power socket once the equipment is installed.
- Only connect the original power adaptor to the receiver. Other power adaptors may damage the circuitry and cause a fire risk.
- DO NOT place heavy objects on the power adaptor or receiver.
- Keep plastic packaging and small parts away from babies and children.

### Prevent overheating

- Locate the power adaptor and receiver in an open, well ventilated area away from heat sources such as heaters, other electrical equipment or direct sunlight.
- DO NOT cover the receiver or power adaptor for example with curtains, cushions or tablecloths.

### Protect from water

- DO NOT expose the power adaptor or receiver to rain, moisture, dripping or splashing.
- DO NOT place objects filled with liquids, such as vases or drinks, on or near the receiver or power adaptor.

### General Precautions

- Keep new and used remote control batteries out of reach of children and ensure that the battery compartment is completely secure after replacing batteries. If swallowed, the battery can cause serious injury or death.
- DO NOT expose the remote control batteries to excessive heat such as fire or sunshine.
- DO NOT place naked flames such as lighted candles on or near the receiver or power adaptor.
- DO NOT remove the power adaptor cover due to risk of electric shock from live parts inside.

## **Equipment Care**

- Unplug the power adaptor from the power socket before cleaning. Clean with a dry or slightly damp cloth.
- If the power adaptor or receiver is damaged, unplug it from the power socket and have it checked by qualified personnel before operating it any further.

## **Hard Drive**

- DO NOT move the receiver whilst the power is on.
- DO NOT expose the receiver to intense vibration or magnetic objects, such as loud speakers, transformers etc.

## **Disposal**

- The crossed-out wheeled bin symbol on electrical/electronic equipment, batteries or their packaging indicates that the electrical/electronic equipment or battery should not be disposed of with other household waste. They should be disposed of separately - contact the place of purchase or local authorities for details.
- Uncontrolled disposal of such waste can harm the environment and human health due to the presence of hazardous substances, so your role in preventing this is important.

# Contents

|                                          |           |
|------------------------------------------|-----------|
| <b>IMPORTANT SAFETY INFORMATION!</b>     | 1         |
| <b>1. Introduction.....</b>              | <b>6</b>  |
| Unpacking the Box.....                   | 7         |
| Controls and Connectors .....            | 8         |
| Front View.....                          | 8         |
| Rear View .....                          | 8         |
| Remote Control .....                     | 9         |
| <b>2. Putting It All Together.....</b>   | <b>10</b> |
| Digital Terrestrial Inputs .....         | 10        |
| Connecting to the Internet.....          | 10        |
| Remote Control .....                     | 11        |
| Replacing the Batteries.....             | 11        |
| Connections.....                         | 12        |
| <b>3. Getting Started.....</b>           | <b>13</b> |
| Switching on for the First Time .....    | 13        |
| STEP 1: Set the PIN (optional) .....     | 14        |
| STEP 2: Search for Services .....        | 15        |
| STEP 3: Select your region.....          | 16        |
| STEP 4: Watching TV.....                 | 17        |
| Controlling your TV.....                 | 18        |
| I have the code for my TV.....           | 18        |
| There are several codes for my TV .....  | 18        |
| Viewing .....                            | 19        |
| Changing Channel.....                    | 19        |
| Sound Controls.....                      | 19        |
| The Information Bar.....                 | 20        |
| Subtitles .....                          | 21        |
| Text and Interactive Services.....       | 21        |
| Watching catch-up and On Demand TV ..... | 22        |

|                                             |           |
|---------------------------------------------|-----------|
| <b>Pause, Rewind and Fast Forward .....</b> | <b>23</b> |
| <b>Recording Programmes.....</b>            | <b>24</b> |
| Stopping a Recording .....                  | 25        |
| Series Linking.....                         | 25        |
| <b>4. Moving On .....</b>                   | <b>26</b> |
| <b>The Main Menu.....</b>                   | <b>26</b> |
| <b>Using the Guide .....</b>                | <b>27</b> |
| Setting Reminders .....                     | 28        |
| Using Programme Information .....           | 29        |
| <b>Favourites .....</b>                     | <b>30</b> |
| Editing a Favourites List .....             | 31        |
| Renaming a Favourites List.....             | 31        |
| <b>Using the Library .....</b>              | <b>32</b> |
| Playing a recorded programme.....           | 33        |
| Sorting the Library .....                   | 33        |
| Deleting a recording or folder.....         | 33        |
| Options .....                               | 33        |
| Managing Scheduled Recordings .....         | 34        |
| The Daily Schedule .....                    | 35        |
| <b>Using Apps.....</b>                      | <b>36</b> |
| <b>5. Settings.....</b>                     | <b>37</b> |
| <b>Languages.....</b>                       | <b>37</b> |
| <b>TV, Audio &amp; Library Setup.....</b>   | <b>38</b> |
| <b>Parental Control.....</b>                | <b>40</b> |
| <b>User Preferences .....</b>               | <b>41</b> |
| <b>Network Setup.....</b>                   | <b>41</b> |
| <b>Power Options .....</b>                  | <b>42</b> |
| <b>Technical Information.....</b>           | <b>42</b> |
| <b>Tuning .....</b>                         | <b>42</b> |
| <b>Factory Reset.....</b>                   | <b>42</b> |

|           |                                      |           |
|-----------|--------------------------------------|-----------|
| <b>6.</b> | <b>Getting Help .....</b>            | <b>43</b> |
|           | <b>Updates .....</b>                 | <b>43</b> |
|           | Over the Air Updates .....           | 43        |
|           | Internet Software Updates .....      | 43        |
|           | Manual Software Update .....         | 43        |
|           | <b>FAQs.....</b>                     | <b>44</b> |
|           | Contacting Customer Support .....    | 46        |
| <b>7.</b> | <b>Remote Control TV Codes .....</b> | <b>47</b> |
|           | TV Manufacturers' Control Codes..... | 48        |
| <b>8.</b> | <b>Symbols and Icons .....</b>       | <b>62</b> |
|           | Symbols on HDT-610R.....             | 62        |
|           | Information Icons.....               | 63        |

# 1. Introduction

Thank you for purchasing your EchoStar Ultra Slim Box HDT-610R **Freeview+ HD** digital TV recorder.

The HDT-610R is a state-of-the-art high definition digital TV recorder (DTR) combining dual channel **Freeview** terrestrial digital television reception with the flexibility of personal video recording. It is the complete entertainment solution: an advanced, high definition (HD) digital TV recorder combining Freeview+ HD, digital TV recording and access to Smart TV entertainment.

- Freeview+ HD – 50 jaw dropping digital channels including 4 in HD; all subscription free.
- Watch & record TV in high definition.
- Unique design; ultra slim case & award winning on-screen guide.
- Smart TV<sup>+</sup> ready; entertainment on demand\* & catch-up TV.
- High capacity recording; 300 hours in SD, or up to 125 hours in HD.
- Twin Tuner; pause live TV, record two programmes at the same time or a complete series.

\* On demand services are provided by third parties and may be chargeable.

+ To get Smart TV features you must connect to the Internet using your broadband router; at least 2 Mbps download speed is recommended.

## About **Freeview**

**Freeview** currently offers 50 digital terrestrial TV channels with 4 channels in High Definition plus 25 radio channels including BBC and ITV. It is a subscription-free service with channels and services being added all the time.

For more information, and a complete list of channels, visit:

[www.freeview.co.uk](http://www.freeview.co.uk)

## Unpacking the Box

Carefully unpack the box and familiarise yourself with each item:

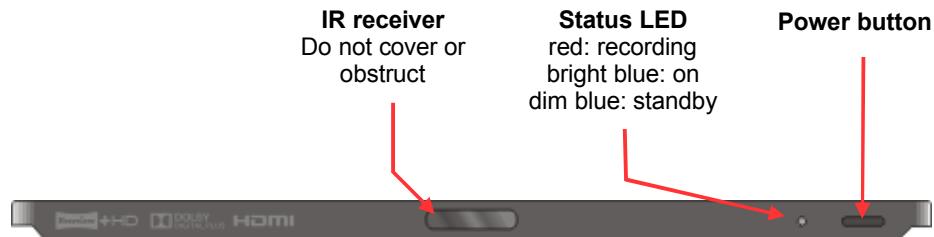
- The HDT-610R digital TV recorder
- 1 Power adaptor
- 1 HDMI cable (1.5m)
- 1 Network cable (2.0m)
- 1 Remote control (2xCR2032 batteries included)
- Digital audio adaptor
- Quick Start Guide
- Warranty Booklet



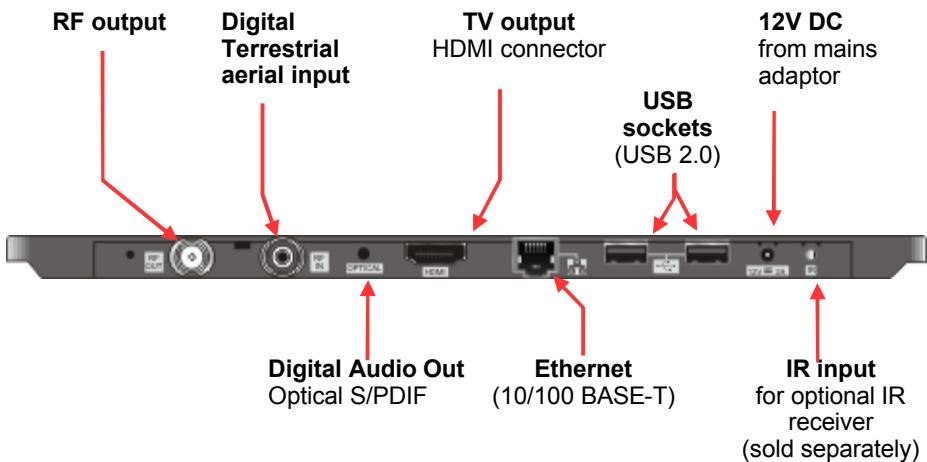
# Controls and Connectors

This section shows the main features of your HDT-610R unit.

## Front View



## Rear View

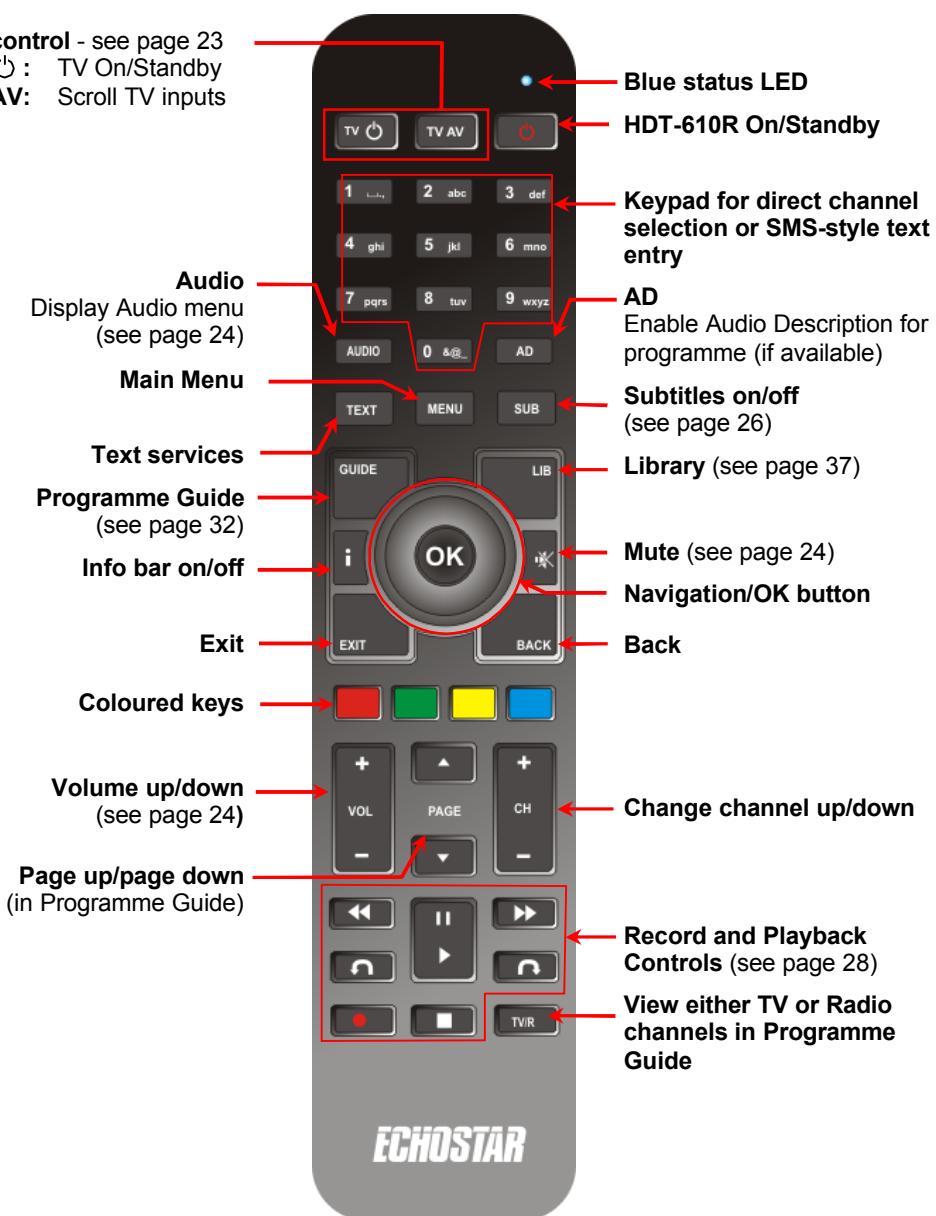


## Remote Control

**TV control** - see page 23

**TV** : TV On/Standby

**TV AV**: Scroll TV inputs



## 2. Putting It All Together

This section describes the basic connections you need to operate the HDT-610R. Its rear panel has connections for audio and video equipment as well as a digital terrestrial aerial input.

You must connect your TV via the HDMI input. You can choose whether to play audio through the HDMI cable or through the digital audio output.

### Digital Terrestrial Inputs

The HDT-610R is designed to use a single digital terrestrial aerial input.

Your TV aerial should be suitable for the reception of digital terrestrial signals.

### Connecting to the Internet

The HDT-610R is designed to work with a wired Ethernet connection. If your router is not in the same room as your HDT-610R, you can use a pair of 'Power-line' devices (which use the home electrical wiring to carry the Ethernet signal).

Before connecting an Ethernet cable to the HDT-610R, unplug the HDT-610R from the mains. With the connection to your network in place, reconnect your HDT-610R to the mains. It may take the HDT-610R a few minutes to start up after connecting to the router for the first time.

To check your internet connection, see page 41.

## Remote Control

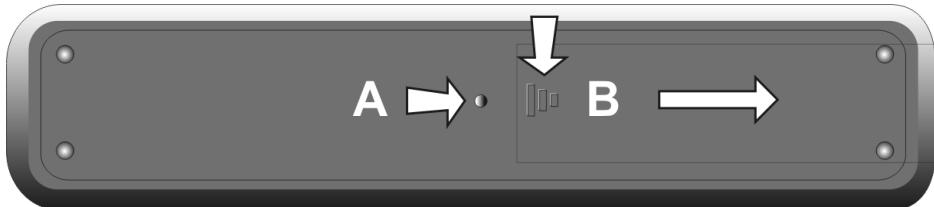
Pull and remove the battery insulator tab to activate the remote control.

## Replacing the Batteries

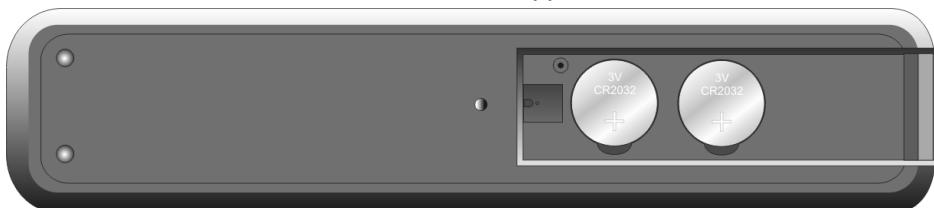
The unit displays a warning message on screen when the batteries need replacing. Also, the LED on the remote will make an additional flash after a button has been released.

The remote control is powered by two CR2032 batteries. To install new batteries:

1. Press the tip of a pointed tool such as a ball-point pen into the hole above the battery cover (A) as shown below. Press down towards the battery compartment, not in the direction of the plastic tab you can see through the hole.
2. At the same time, gently press down on the battery cover grooves and slide out the battery cover (B).

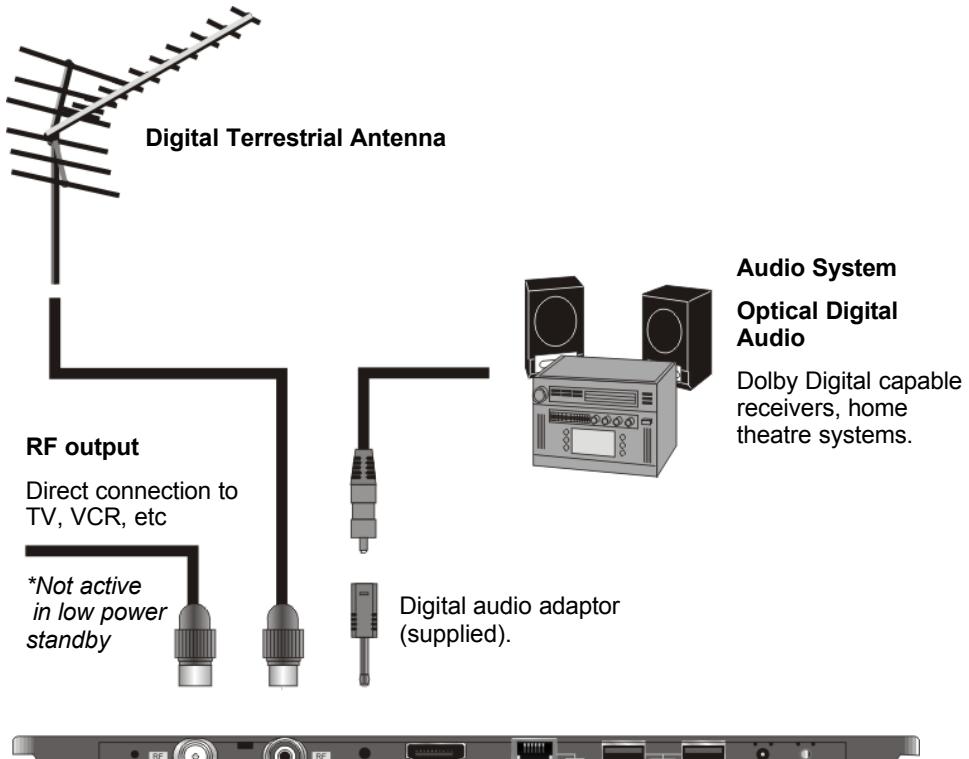


3. Remove the two CR2032 batteries and replace with new batteries. Make sure that the '+' mark on the batteries is uppermost and visible.



4. Replace the battery cover securely. Keep batteries out of reach of children.

# Connections



## TV

Connect using HDMI (cable supplied - only use good quality screened HDMI cables)



## Internet

Connect to broadband router using supplied Ethernet cable (connection required for **catch-up TV** and **on-demand** functions)

## Power

Connect to 12V power supply

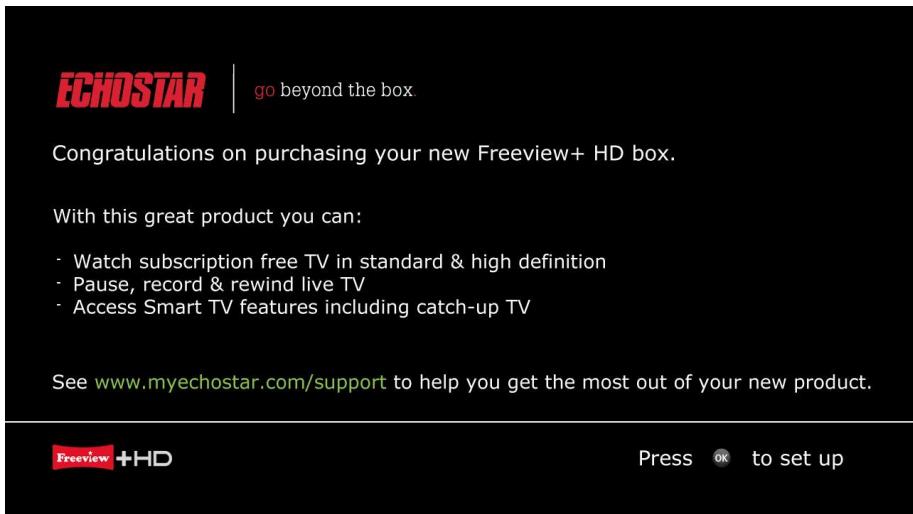
### 3. Getting Started

Before you switch on the power to your HDT-610R, check the following:

- Have you removed the battery insulator tab from the remote control?
- Is the unit connected correctly (see page 12)?
- Is the TV switched on?

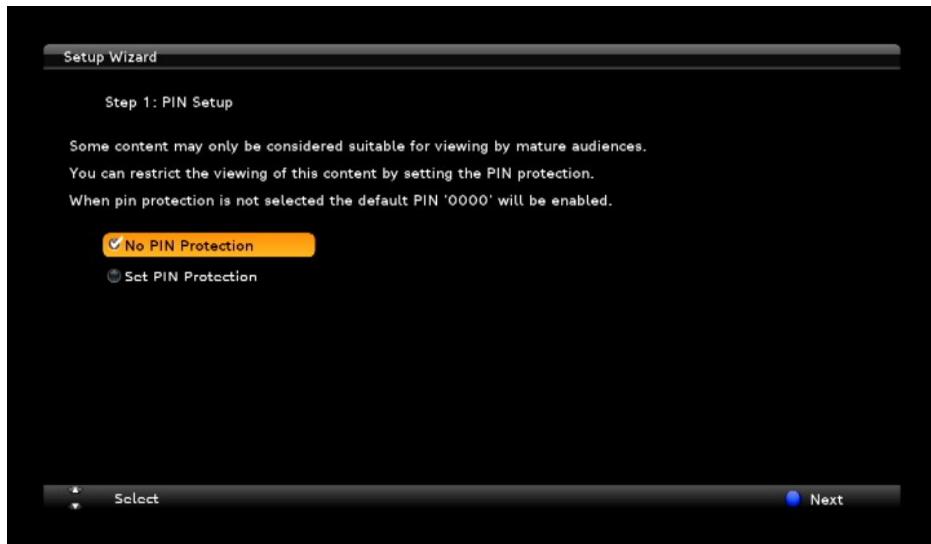
### Switching on for the First Time

When you switch on your HDT-610R for the first time, it may take up to a minute for the unit to power up and display the Setup Wizard (see below). This will guide you through the process of setting up the HDT-610R and scanning for **Freeview** channels.



Follow the on-screen instructions: press **OK** to start the installation process.

## STEP 1: Set the PIN (optional)



The HDT-610R now gives you the option to set a PIN code to restrict the viewing of any programmes broadcast or recorded with parental guidance advice. Before a user can view these programmes, they will need to enter the PIN code.

**Tip.** You can choose to enable or disable PIN protection at any time through the Settings menu (see page 40).

1. Use the menu navigation button to choose the required option:
  - No PIN Protection
  - Set PIN Protection
2. Press **OK** to accept.
3. If you select **Set PIN Protection**, use the numbered buttons on the remote to enter a PIN number.
4. Press the **BLUE** button to save the PIN.

**Tip.** If you don't enter a PIN, the unit will use the default code "0000". If you have forgotten your PIN, see page 40.

## STEP 2: Search for Services



The HDT-610R starts a search for channels and compiles a list of the TV and Radio services it has found. The bar at the bottom of the screen indicates progress.



## STEP 3: Select your region

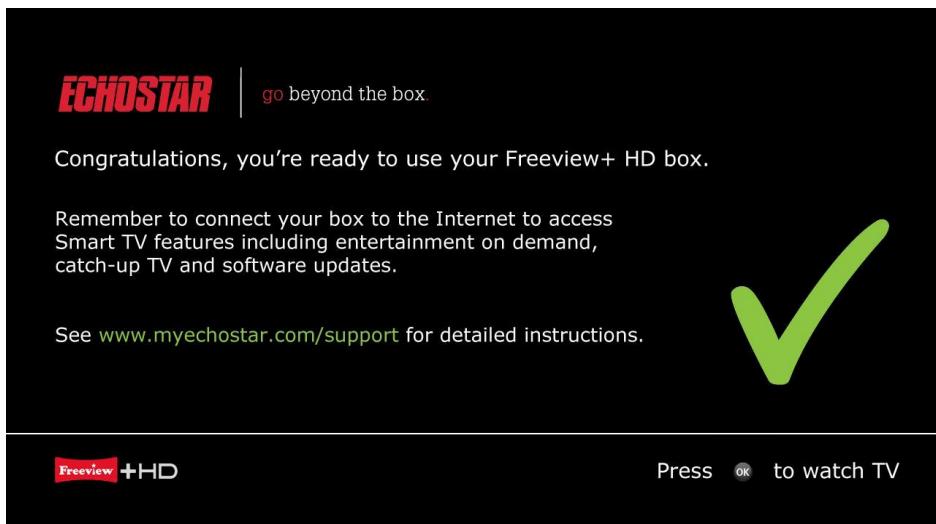
**Tip.** You will only see this screen if you can receive signals from more than one transmitter.



Use the menu navigation button to highlight your preferred region.

Press the **OK** button to continue.

## STEP 4: Watching TV



Once the HDT-610R has successfully completed its search for channels, the screen shown above is displayed.

Press **OK** to watch TV. The unit will show the first channel in its list of detected channels.

All done!

- To learn how to set up the remote for use with your TV, go to page 18.
- To find out how to make recordings, go to page 24.
- To read about the Programme Guide, go to page 27.

## Controlling your TV

The HDT-610R remote control has a number of buttons that can be used to control your TV. These are:



Volume up/down   Mute   TV On/Standyby   TV source

To be able to use these buttons, your HDT-610R's remote needs to be programmed with a 4-digit code. This identifies the correct signals for your TV. the appropriate codes for your TV. An extensive list of codes covering the majority of TV models is included at the back of this manual - see page 47.

### I have the code for my TV

To program the remote:

1. Hold down both the **CH+** and **VOL-** keys simultaneously for at least 2 seconds. The blue LED gives two slow flashes to indicate successful entry into the setup mode.
2. Using the numbered keys, enter the 4 digit code within 30 seconds. The LED will flash for each entry.
3. After the fourth digit entry, the blue LED gives two slow flashes to indicate that the code has been successfully programmed.

In the event of an error, the LED gives four rapid flashes. If this occurs, you will need to repeat this process.

### There are several codes for my TV

Where several codes are listed by a manufacturer, it may be necessary to repeat the above sequence with each code until the correct one is found.

## Viewing



### Changing Channel

You can change channel in several ways:

- Press the channel up or channel down key.
- Enter the channel number.
- Press **OK** to display the channel list and use the navigation button to select the desired channel and then press **OK** to view.
- To see a list of all available channels, press the **GUIDE** key.

Whenever you change channel, the information bar is displayed across the bottom of the screen for a few seconds.

### Sound Controls

**Tip.** You will need to program the **VOL+/-** and **MUTE** keys to function with your TV (see page 18).



#### *The Audio menu*

Press the **AUDIO** key to view audio options. Use the arrow keys to select the required option. Press **OK**.

#### *Muting the sound*

To turn the sound off, press the **MUTE** button. To restore sound, press the **MUTE** button again or use the **VOL +/ -** button.

#### *Adjusting the volume*

To adjust the sound level, use the **VOL+ /-** button on the remote.

## The Information Bar



A banner is displayed across the bottom of the screen for a few seconds whenever you change channel. It shows details about the current channel and programme.

More detailed information can be displayed at any time by pressing the i key.

Press the navigation button up or down to view different channels.

Press the navigation button left or right to browse across the programmes scheduled for transmission on this channel.

Press the **GREEN** key to set a reminder; the unit will alert you when the program is about to start (see page 28).

Press the **BLUE** key to change the picture resolution (the current resolution is shown in the top right corner of the info bar's symbol area).

Press the **Record** button to record the highlighted programme (or stop the recording if it is already in progress).



**Tip.** The icons on the right hand side give you additional information about the programme (see page 63). In the example here, the icons show the display resolution (720p), the availability of multiple audio components, subtitles and text services, that the programme is part of a series, and that it is a HD transmission.

## Subtitles



Press the **SUB** key to display the Subtitle menu.

Press the navigation button up or down to select the subtitle language. Press **OK** to select.

**Tip.** If you use subtitles, you won't be able to access text services at the same time. For Language selection, see page 37.

## Text and Interactive Services



Some channels (BBC, ITV) offer text or interactive services. Press the **TEXT** key to display the service. These services are only available when you are watching live TV with subtitles off.

A screenshot of the BBC Home interactive service menu. The menu shows various options and their corresponding channel numbers:

| Category               | Channel Number |
|------------------------|----------------|
| Wednesday 04 Aug       | 100            |
| How to Get BBC iPlayer |                |
| News                   | 102            |
| Sport                  | 300            |
| Weather                | 400            |
| Entertainment          | 500            |
| Lottery                | 555            |
| Sport Multiscreen      | 3001           |
| Around the UK          | 160            |

At the bottom of the screen, there is text: "Read the latest Business News - 200" and "To exit, press TEXT".

## Watching catch-up and On Demand TV

### *catch-up TV*

To access BBC iPlayer, and other catch-up TV services, your HDT-610R must be connected to a suitable broadband connection.

You can also access BBC iPlayer from some BBC channels.

1. Press the **TEXT** or **RED** button.
2. Follow the on-screen instructions to access BBC iPlayer.

### *On Demand TV*

To access on-demand services, your HDT-610R must be connected to a suitable broadband connection.

1. Press the **MENU** button.
2. Using the navigation keys, highlight the **Apps** icon and press **OK**.
3. Using the navigation keys, select the on-demand service required and press **OK**.

If no icons are shown in the *Apps* menu then no on demand services are currently available. Check back later for updates or go to **[www.myechostar.com](http://www.myechostar.com)** for the latest news.

## Pause, Rewind and Fast Forward

When watching TV, there's no need to miss any of the action. You can pause "live" TV for up to one hour. You can rewind a programme to see a scene again and then fast forward onwards to rejoin the live action.

When you pause a programme, the unit will continue to save the output from the current channel for up to one hour. Thereafter, it will begin to play back the programme from where you left off and continue to save live transmissions.

**Tip.** The HDT-610R saves up to one hour of the current channel's transmissions for you to rewind and replay. This buffer is reset whenever you change channel: you can only rewind as far as the last channel change.

**PLAY:** resume your viewing after pausing, rewinding or fast forwarding.

**FAST REWIND:** rewind the programme. Repeated presses of the button doubles the rewind speed up to 64 times normal playing speed.

**SKIP BACKWARD:** 'rewind' the programme by 10 seconds.

**PAUSE:** pause playback.

**FAST FORWARD:** double the playing speed. Repeated presses of the button doubles the fast forward speed up to 64 times normal playing speed.

**SKIP FORWARD:** advance viewing by 30 seconds.



**STOP:** halt the current programme.

**Tip.** These buttons have the same functions when you are viewing recorded programmes.

# Recording Programmes



Press the **Record** button to start recording the programme you are viewing.

If you want to record a different channel:

- Press the **GUIDE** button, browse to and highlight the programme you want to record (see page 29) and then press the **Record** button.
- Press the **INFO** button, browse to and highlight the programme you want to record (see page 20) and then press the **Record** button.

Press the **LIB** button to access previously recorded programmes (see page 32).

You can also access the Library (see page 32) from the main menu (see page 26).

To show that a programme is scheduled to be recorded, a symbol is shown in the icon section (see page 63) of the Info bar and Favourites list. In the Programme Guide, the scheduled programme is highlighted in red.

If you change your mind, and want to cancel a scheduled recording:

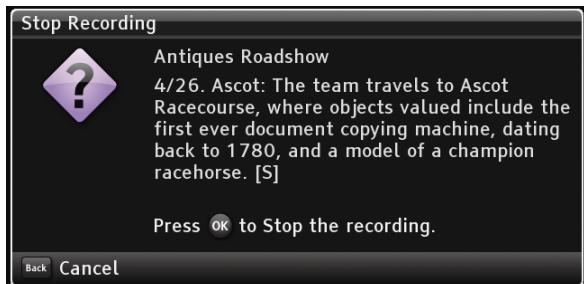
1. Select the programme in the Programme Guide.
2. Press the **Record** button.
3. Press the red button to cancel the recording.
4. Press **OK** to confirm.

**Tip.** Current and future recordings are listed in the **Library** under *Scheduled Recordings* and can be edited or deleted there (see page 32).

## Stopping a Recording

To cancel the recording of a live programme, press the **■** (stop) button.

Press the **OK** button to stop the recording or press the **BACK** button to dismiss the message and continue recording the programme.



**Tip.** To stop the recording of a future programme, select it in the guide (see page 29) or info bar (see page 20), press the Record button and then follow the on-screen prompts.

## Series Linking

When you press the record button, the HDT-610R displays this message if the programme is part of a series.

To just record the selected programme:



1. Press the navigation button down to highlight *Record Just This Programme*.
2. Press **OK**.

To record the selected programme and automatically record all other programmes in the same series, simply press the **OK** button.

# 4. Moving On

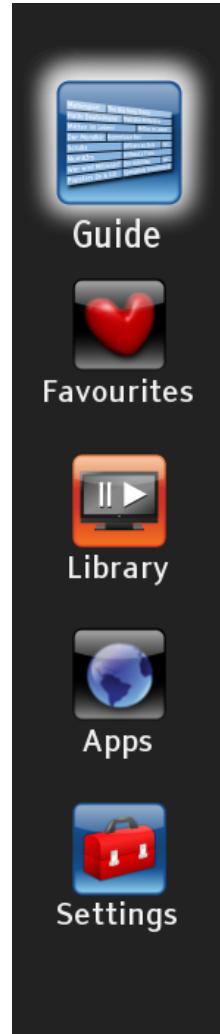
The previous chapter described the basic use of your HDT-610R unit for watching TV and for making and viewing recordings. This section describes the onscreen Main Menu. Within the Main Menu you have access to the Programme Guide, your Favourites Lists, Library, Apps and Settings.

## The Main Menu



Press the **MENU** button on the remote to access the unit's advanced functions:

- Guide (see page 27)
- Favourites (see page 30)
- Library (see page 32)
- Apps (see page 36)
- Settings (see page 37)

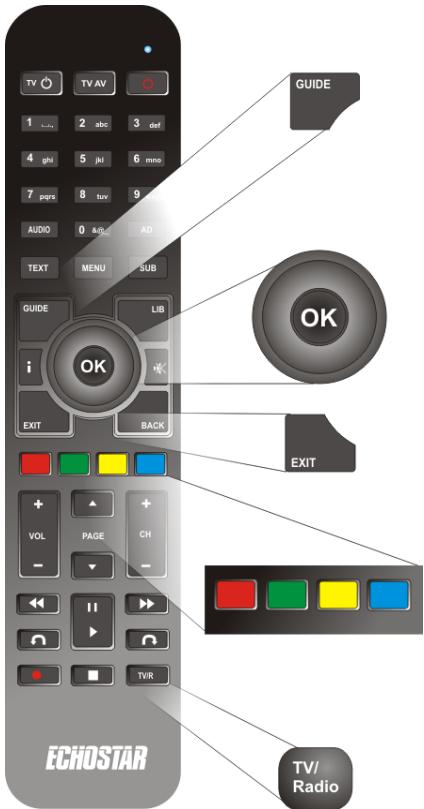


The Main Menu bar is displayed on the left side of the screen. To navigate the main menu and its sub-menus, use the navigation button on the remote to highlight the option you want and press the **OK** button to select it.

Press the **EXIT** button to hide the Main Menu bar.

## Using the Guide

The Guide lists all the channels you can view and has programme details for up to 7 days. You can use the guide to select your current viewing channel, to record another programme or to schedule future recordings.



Press the **GUIDE** key.

Press the navigation button up or down to select the channel of interest and then left or right to view current and future program details.

Press the **OK** key to view a highlighted program (if it is currently being broadcast). If the program is not currently being broadcast, pressing the **OK** button will set a reminder (see below).

Press the **EXIT** key to return to your current program.

The **RED**, **GREEN**, **YELLOW** and **BLUE** keys can be used to move the guide information forward or back by 2.5 hours or 1 day at a time.

**Tip.** When in normal TV viewing mode, use the TV/Radio key to toggle between radio and TV services.

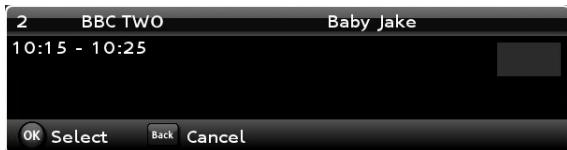
## Setting Reminders

You can set a reminder from the Info bar (see page 20) or from the Guide (see above). When you do so, the HDT-610R will alert you two minutes before the programme is scheduled to start so you can switch channels or record the programme. Unless you cancel the alert, it will remain on screen until two minutes after the scheduled start time.

Programmes with a reminder set are highlighted in green in the programme guide and have a green circle in the symbols area of the guide and info bar (see page 63).

### *Dealing with a reminder*

- Press **OK** to switch channels and view the programme.
- Press the **BACK** button to dismiss the reminder and continue with your viewing.



## Using Programme Information

Within a channel list, use the navigation button to select the channel of interest and highlight programmes. Information about the programme is provided by the information icons (see page 63).

Use the coloured buttons to move the guide information forward or back by 2.5 hrs (a full screen) or 1 day at a time:

- |               |                                                                                |
|---------------|--------------------------------------------------------------------------------|
| <b>RED</b>    | Move guide back by 2.5 hours (not available for programmes already broadcast). |
| <b>GREEN</b>  | Move guide forward by 2.5 hours (a full screen).                               |
| <b>YELLOW</b> | Move guide back by 1 day (not available for programmes already broadcast).     |
| <b>BLUE</b>   | Move guide forward by 1 day.                                                   |

Press **OK** to set a reminder for the highlighted programme.

Press the **Record** button to record the highlighted programme (or to stop a recording if it is already scheduled or in progress).

The screenshot shows a digital TV guide interface with the following details:

- Current channel (orange):** BBC ONE (highlighted by a red arrow)
- Current programme (orange):** Escape to the Country (highlighted by a red arrow)
- Scheduled for recording (red):** Helicopter Heroes (highlighted by a red arrow)
- Reminder set (green):** Midsomer Murders (highlighted by a red arrow)
- Information icons (see page 68):** Mon 02 Apr 14:54 (highlighted by a red arrow)

**Programme List:**

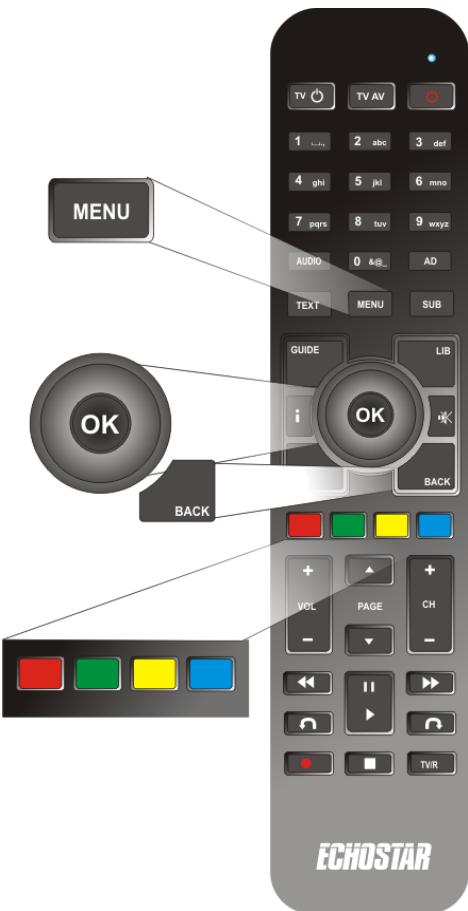
| Channel   | Programme               | Start Time | End Time | Description                                                                                                                                                             |
|-----------|-------------------------|------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BBC ONE   | Escape to t...          | 14:30      | 15:00    | ... Worcestershire: Denise Nurse visits Worcestershire to help a couple with three kids - and a fourth on its way - find a family home. Will it be a tricky search? [S] |
| BBC TWO   | To Buy or N...          | 15:00      | 15:30    | Horrible Hi...                                                                                                                                                          |
| ITV1      | 60 Minute ...           | 15:30      | 16:00    | Dickinson's Real Deal                                                                                                                                                   |
| Channel 4 | The Quiet Man           | 16:00      | 16:30    | Lockie Le...                                                                                                                                                            |
| Channel 5 | The Mentalist           | 16:30      | 17:00    | All Over th... Help! My S...                                                                                                                                            |
| ITV2      | .. The Jeremy Kyle Show | 17:00      | 17:30    | Helicopter Heroes                                                                                                                                                       |
| BBC THREE | This Is BBC Three       | 17:30      | 18:00    | Flog It!                                                                                                                                                                |
| BBC FOUR  | This Is BBC Four        | 18:00      | 18:30    | Breakaway                                                                                                                                                               |

## Favourites

**freeview** provides you with access to over 50 TV channels. Finding your usual viewing channels in the Guide listings can therefore be difficult and time-consuming. To make channel selection easier, you can create up to four Favourites lists: reduced listings showing just those channels that you watch regularly.

To select or edit a Favourites list:

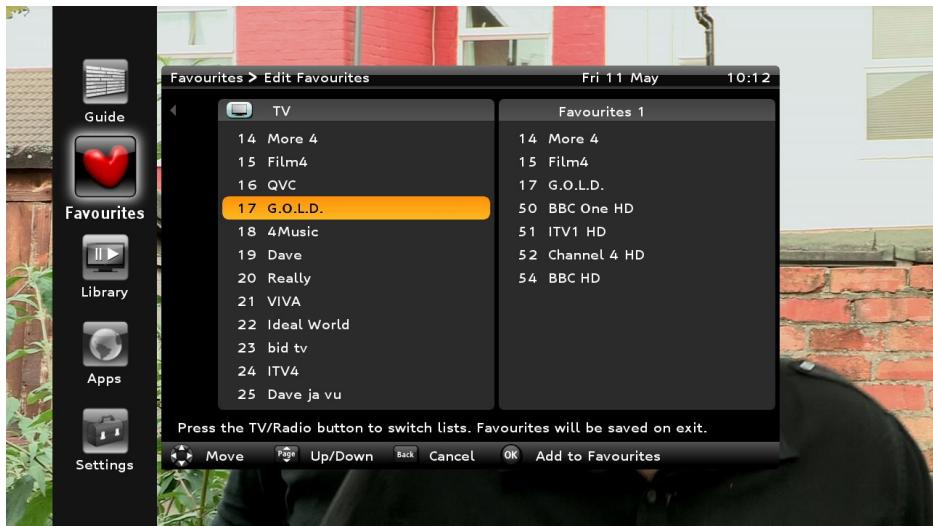
1. Press the **Main Menu** button.
2. Use the navigation button to highlight **FAVOURITES** and then press **OK**.
3. Use the navigation button to highlight the Favourites list you want to set up or edit: lists are named Favourites 1, 2, 3 or 4. By default, the Favourites feature is turned off.
4. Choose one of the following options:
  - To set-up or edit the selected list, press the **YELLOW** button. Go to section *Editing a Favourites List* on page 31.
  - To change the name of the selected favourite list, press the **GREEN** button. Go to *Renaming a Favourites List* on page 31.
  - To select an existing favourites list press the **OK** button. If the list has been set up, the unit enables it for channel selection. If the list is empty, a status message is displayed; press the **OK** button again to continue.
  - To clear the selected list, click on the **RED** button.



Use the **CH** buttons (see page 19) or the Information bar (see page 20) to select channels from within an active Favourites list.

## Editing a Favourites List

From the Favourites menu (see page 30), press the **YELLOW** button to create or edit the selected *Favourites* list. Press the **TV/RADIO** key on the remote to toggle between radio and TV services.



### *Adding channels*

To add a channel to the selected Favourites list, select it in the left-hand list using the navigation button and then press **OK**. Repeat the procedure to add further channels to the list.

### *Deleting channels*

To delete a channel, select it in the Favourites list and then press the **RED** button.

## Renaming a Favourites List

From the Favourites menu (see page 30), press the **GREEN** button to change the name of the selected Favourites list. You can use the numeric keys to enter your text in multi-tap style or, alternatively, press the **YELLOW** button to use a virtual keyboard.

- In multi-tap style, press the **BLUE** button to switch to capital letters.
- In virtual keyboard mode, press the **BLUE** button to switch to symbols.

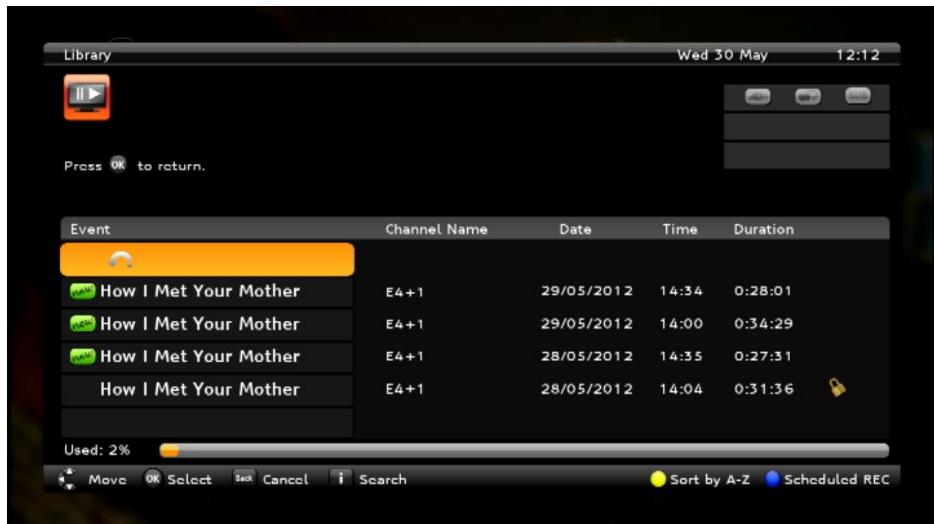
Press the **GREEN** button to save the new name or the **BACK** button to discard any changes and revert to the original name.

## Using the Library

The Library stores your recorded programmes and information about future recording events (timers). You can access the **Library** from the Main Menu or directly by pressing the **LIB** key on the remote control. To help you manage your recordings and timers, the Library has three views:

- **Library**: lists all your completed and saved recordings.
- **Scheduled Recordings**: a list of pending timers.
- **Daily Schedule**: a history of your programme recording activities.

You can cycle between the *Library*, *Scheduled Recording* and *Daily Schedule* views by pressing the **BLUE** key.



**Tip.** Your HDT-610R is fitted with a 500GB hard drive with a capacity to record about 125 hours of HD programmes or 300 hours of SD programmes. In the lower left corner of the *Library* screen the HDT-610R displays the percentage of the drive currently occupied by recorded programmes.

## Playing a recorded programme

Use the navigation button to highlight the recording you want to view and press **OK**. If you have viewed the recorded programme previously you can choose to resume viewing or restart from the beginning of the recording.

At the end of the recording the *Library* menu is re-displayed.

## Sorting the Library

You can list Library programmes either in time order, with the most recently recorded programmes at the top of the list, or alphabetically. Press the **YELLOW** key to switch between the two arrangements.

## Deleting a recording or folder

Recorded programmes remain in the Library until you manually delete them using this procedure. You can delete individual programmes or a complete series of programmes stored in a folder.

1. Select the recording or folder you want to delete using the navigation button.
2. Press the **RED** button.
3. Press the **OK** button to confirm or **BACK** to cancel.

## Options

With a library programme selected, press the **GREEN** button to view the *Options* menu. This allows you to change a selected programme's 'New' status, its displayed name, or to apply PIN protection.

### *Renameing a programme*

1. Select the programme in the Library list. Press the **GREEN** button.
2. Use the navigation button to select *Rename*. Press the **OK** button.
3. Use the *multi-tap entry method* screen to enter a new name.
4. Press the **GREEN** button to save the new name or the **BACK** button to discard any changes and revert to the original name.

## *Locking/unlocking recordings*

1. Select the programme in the Library list. Press the **GREEN** button.
2. Use the navigation button to select *Lock*. Press the **OK** button.
3. If the recording has previously been locked, you will need to enter the password to unlock it.

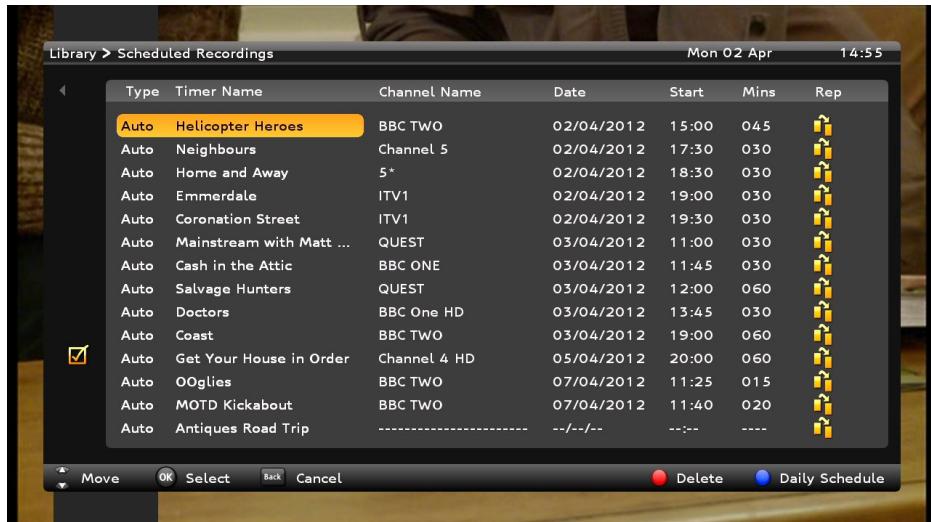
## *Changing the New status*

 A 'New' icon is automatically displayed alongside a library recording until you watch it for the first time. Through the Options menu, you can also change the status of any recording to display or hide the 'New' icon:

1. Select the programme in the Library list. Press the **GREEN** button.
2. Use the navigation button to select *New status*. Press the **OK** button.
3. Change the status to *ON* to display the 'New' icon alongside the recording or *OFF* to remove it.

## **Managing Scheduled Recordings**

From the *Library* view, press the **BLUE** button to switch to *Scheduled Recordings*. This lists current and future recordings.



The screenshot shows a list of scheduled recordings. The table has columns for Type, Timer Name, Channel Name, Date, Start, Mins, and Rep. The 'Timer Name' column is currently sorted, with 'Helicopter Heroes' highlighted in yellow. The 'Rep' column contains small icons representing repeat patterns.

| Type | Timer Name               | Channel Name | Date       | Start | Mins | Rep |
|------|--------------------------|--------------|------------|-------|------|-----|
| Auto | Helicopter Heroes        | BBC TWO      | 02/04/2012 | 15:00 | 045  |     |
| Auto | Neighbours               | Channel 5    | 02/04/2012 | 17:30 | 030  |     |
| Auto | Home and Away            | 5*           | 02/04/2012 | 18:30 | 030  |     |
| Auto | Emmerdale                | ITV1         | 02/04/2012 | 19:00 | 030  |     |
| Auto | Coronation Street        | ITV1         | 02/04/2012 | 19:30 | 030  |     |
| Auto | Mainstream with Matt ... | QUEST        | 03/04/2012 | 11:00 | 030  |     |
| Auto | Cash in the Attic        | BBC ONE      | 03/04/2012 | 11:45 | 030  |     |
| Auto | Salvage Hunters          | QUEST        | 03/04/2012 | 12:00 | 060  |     |
| Auto | Doctors                  | BBC One HD   | 03/04/2012 | 13:45 | 030  |     |
| Auto | Coast                    | BBC TWO      | 03/04/2012 | 19:00 | 060  |     |
| Auto | Get Your House in Order  | Channel 4 HD | 05/04/2012 | 20:00 | 060  |     |
| Auto | OOglies                  | BBC TWO      | 07/04/2012 | 11:25 | 015  |     |
| Auto | MOTD Kickabout           | BBC TWO      | 07/04/2012 | 11:40 | 020  |     |
| Auto | Antiques Road Trip       | -----        | --/--/--   | --:-- | ---- |     |

## *Deleting a scheduled recording*

To delete a scheduled recording (a timer):

1. Select the listing to be deleted using the navigation button.
2. Press the **RED** button to delete an existing timer.
3. Press **OK** to save settings.

## **The Daily Schedule**

From the *Scheduled Recordings* view, press the **BLUE** button to switch to the *Daily Schedule*. This logs information about your recording events. If a recording has not completed successfully, you will find information here that may explain the problem. For example, a recording may have been cancelled because of a channel clash.



## *Modifying a Recording*

The Daily Schedule allows you to modify any pending timer events. For example, you can choose to record alternative airings of a programme. To modify the recording:

1. Use the navigation button to select the programme (timer) name.
2. Press the **Record** button.
3. Choose from the displayed options: delete the timer event or move it to an alternative showing of the programme (if available).

### *Deleting the Daily Schedule history*

Over time, the Daily Schedule list may become large and difficult to use. Press the **RED** button to clear the history and restart the list.

## Using Apps

The Apps menu is reserved for future Internet-based Smart TV services. Apps will be added to this menu automatically as they become available as part of HDT-610R software updates (see page 43).

To get Smart TV features, you must connect to the Internet using your broadband router; at least 2 Mbps download speed is recommended. Some Smart TV services are provided by third parties and may therefore be chargeable.

# 5. Settings

The *Settings* menu allows you to configure the unit and to set personal preferences. Use the navigation button to highlight items. Press the **OK** key to choose an option.

**Note.** In the following tables, a setting marked by a \* symbol is the default factory setting.

The *Settings* menu categories are:

- **Languages**
- **TV, Audio & Library Setup**
- **Parental Control**
- **User Preferences**
- **Network Setup**
- **Power Options**
- **Technical Info**
- **Tuning**
- **Factory Reset**

## Languages

The *Languages* menu allows you to choose the primary options for *Subtitles*, *Data Services* (digital interactive services) & *Primary Audio*:

|                          |                                                                  |
|--------------------------|------------------------------------------------------------------|
| <b>Subtitles</b>         | <i>Off*</i><br><i>English</i><br><i>Welsh</i><br><i>Gaelic</i>   |
| <b>Data Service</b>      | <i>Off</i><br><i>English*</i><br><i>Welsh</i><br><i>Gaelic</i>   |
| <b>Primary Audio</b>     | <i>English*</i><br><i>Welsh</i><br><i>Gaelic</i><br><i>Irish</i> |
| <b>Audio Description</b> | <i>Off*</i><br><i>On</i>                                         |

## TV, Audio & Library Setup

The *TV, Audio & Library* menu allows you to select the correct display and audio outputs to suit your TV and to set up the Library settings for the recording and playback of programmes. The following table lists the options. Please visit [www.myechostar.com/support](http://www.myechostar.com/support) if you need any help.

| Category                  | Menu                        | Sub-menu | Options                                                                                            |
|---------------------------|-----------------------------|----------|----------------------------------------------------------------------------------------------------|
| HD TV<br>Setup            | HD Resolution               |          | 576p<br>720p<br>1080i<br>1080p<br>Best Available*                                                  |
|                           | Picture Format              |          | 4.3 deep pillarbox<br>14.9 pillarbox<br>16.9 centre cutout<br>Recommended*<br>Anamorphic "stretch" |
|                           | Restore Default<br>Settings |          |                                                                                                    |
| Audio<br>Delay            |                             |          | Digital Audio Output                                                                               |
| Digital<br>Audio<br>Setup | HDMI                        |          | Auto Stereo/Surround*<br>Stereo Only                                                               |
|                           | Optical Digital<br>Audio    |          | Stereo only<br>Multi-Channel*                                                                      |
|                           | Midnight mode               |          | Off*<br>On                                                                                         |

| Category      | Menu                    | Sub-menu                                             | Options                                               |
|---------------|-------------------------|------------------------------------------------------|-------------------------------------------------------|
| HDCP Setup    |                         |                                                      | Always On*<br>Automatic                               |
| Library Setup | Recording Setup         | Recording Start:                                     | Timed<br>Auto*                                        |
|               |                         | Auto Conflict Resolution                             | No*<br>Yes                                            |
|               |                         | Series Recording                                     | Never<br>Always<br>Prompt*                            |
|               |                         | Allow Recommendations                                | Off<br>On*                                            |
|               | Playback Setup          | Default Skip Forward                                 | 10 Seconds*<br>30 Seconds<br>45 Seconds<br>60 Seconds |
|               |                         | Default Skip Backward                                | 10 Seconds*<br>30 Seconds<br>45 Seconds<br>60 Seconds |
|               | Re-Initialise Hard Disk | <b>CAUTION! THIS WILL DELETE ALL YOUR RECORDINGS</b> |                                                       |
| Screen-saver  |                         |                                                      | Off<br>On*                                            |

## Parental Control

This menu allows you to safeguard your children from unsuitable programmes by restricting their access to certain channels, content or features. Parental Control relies on you creating and applying a secure PIN code to channels or programmes. It should be memorable for you, but not for your children, and you should change it regularly.

**Tip:** If you forget your PIN then use “2846” to gain access and set a new PIN immediately.

The Parental Control menu options are as follows:

|                   |                                                                                                                                                                                                                                                                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Change PIN        | Choose this option to enter and confirm a new PIN.                                                                                                                                                                                                                                                                                        |
| Service Locks     | <p>Apply PIN protection to one or more channels.</p> <p>Use the arrow keys to highlight the channel you want to lock; then press the <b>OK</b> button.</p> <p><i>Tip: use the Page Up/Page Down keys to step through the guide.</i></p> <p>If you want to watch a locked channel, press the <b>RED</b> button and enter the PIN code.</p> |
| Pin Protection    | Protect all recorded programmes which carry a guidance notice. If an attempt is made to play such a recording before the 9pm watershed, the viewer is prompted to enter the PIN code.<br><br><i>PIN Required</i><br><i>PIN Not Required*</i>                                                                                              |
| IP Pin Protection | Choose PIN protection settings for content accessed via the Internet<br><br><i>Required for everything</i><br><i>Guidance programmes only</i><br><i>Not Required*</i>                                                                                                                                                                     |

## User Preferences

Use this menu to change the appearance of text in the settings menus.

|                     |                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transparency</b> | <i>Solid</i> (Menu background is opaque but clearer)<br><i>Low</i><br><i>Medium*</i><br><i>High</i> (Menu backgrounds are fully transparent) |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------|

## Network Setup

This menu can be used to view and configure network settings.

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Internet Interactive Content</b> | On*/Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Internet Connectivity</b>        | On*/Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Wired Connection Settings</b>    | In most cases, <i>Auto Setup</i> will correctly configure your network and internet connection via a local DHCP server or DHCP-enable router. If you encounter any networking problems, visit <a href="http://www.myechostar.com/support">www.myechostar.com/support</a> . It may be necessary to disable <i>Auto Setup</i> to configure the connection manually. Unless this is the case, or you are an experienced with network configurations, you are not recommended to change this setting. |

## Power Options

Power-saving settings can be configured using this menu. Options allow you to select the power consumption in standby mode.

|                                                                           |                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power Mode</b><br><br>Power saving mode used when unit enters standby: | <i>Low power standby*</i><br><br>Lowest power consumption but the receiver will take longer to switch to the active or ON state.<br><br><i>Normal power standby</i><br><br>Faster switching on; higher power consumption. |
| <b>Inactivity Standby</b>                                                 | Define time period before the receiver goes into standby if no remote control or front panel keys are operated: <i>Off, 4 Hours*, 5 Hours, 6 Hours</i>                                                                    |

## Technical Information

This menu displays software version and other technical information.

## Tuning

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Services</b>    | Lists all channels.                                                                                                         |
| <b>Manual scan</b> | Carry out a manual scan for services by setting <i>UHF channel, Frequency, bandwidth, System type</i> (advanced users only) |

## Factory Reset

Choose this option to restore the default configuration settings or when you need to retune or have moved house and need to perform the installation again.

**Note.** In addition to removing all your personal settings, this will cancel any scheduled recordings. Existing recordings are not affected and previously saved content will not be deleted.

# 6. Getting Help

## Updates

Your HDT-610R can be updated in three ways:

- Automatically, over the air via the TV signal.
- Automatically, over your Internet connection.
- Manually: download the update from [www.myechoStar.com/support](http://www.myechoStar.com/support), saving it onto a memory stick and then applying it yourself.

### Over the Air Updates

Over the Air (OTA) updates, with new channel and transmission information, are provided by **freeview** from time to time. The HDT-610R receives these automatically. A pop-up message will be displayed on screen when an update is available.

### Internet Software Updates

From time to time, Echostar will issue software updates. When a new version of the HDT-610R software is available, a pop-up message is displayed on screen. Follow the instructions to download and install the update (requires an active Internet connection).

### Manual Software Update

You can manually update the HDT-610R by following the steps below:

1. Visit [www.myechoStar.com/support](http://www.myechoStar.com/support) to locate the latest software.
2. Copy the update file to an empty USB memory stick.
3. Insert the USB memory stick into either the front or rear USB ports (see page 8). The screen will display a message confirming that the USB memory stick has been detected and shows the version number of the software update.
4. The HDT-610R will reset.
5. The updating process may take up to 5 minutes. When it is complete, the HDT-610R will automatically restart.

## FAQs

If you can't find a solution to a problem here, please visit:  
[www.myechoistar.com/support](http://www.myechoistar.com/support)

---

### No lights on HDT-610R; it doesn't switch on

- Check that the mains power adaptor is plugged in and the power socket is switched ON.
- Try a different power socket.
- Check the fuse.

---

### No TV picture

- Check that the HDT-610R is plugged in, switched on and has had sufficient time to boot up.
- Make sure the HDT-610R is not in Standby (you can bring the unit out of standby by pressing the button on the front of the unit).
- Ensure the HDMI cable is firmly connected to the unit and to the TV.
- Ensure that the aerial cable is firmly connected to the unit and is in good condition.
- Ensure that the TV is set up with the HDT-610R and is not configured to receive input from an external device such as a DVD Player.
- Check that the TV is switched on and that the brightness level is set correctly.
- Try changing channel: the selected channel may be off air.

---

### No sound

- Ensure the AV cable (either HDMI or Digital Audio plus adaptor) is firmly connected to the unit and to the TV.
- Check the volume level of your TV or Audio/Theatre System (if connected).
- Check that the HDT-610R, TV or Audio/Theatre System are not set to MUTE.

---

### Poor picture or sound quality

- Ensure that the aerial is of the correct type for digital terrestrial receptions and is installed correctly.
- Picture quality may be affected by damage to the cable from the aerial.
- Check that the aerial input cable is connected properly.
- Try another channel; the problem may be due to a transmission fault.

---

### The remote control doesn't work

- Ensure that you are holding the remote control correctly with the lens at the top of

the control pointing at the HDT-610R.

- Ensure that the IR window on the HDT-610R (see page 8) is not covered by, for example, papers and that the remote is within range.
- Does the LED at the top of the remote control light up when you press any button? Has the battery insulator tab been removed?
- Check that the batteries have charge and are in good condition. Try removing and replacing the batteries making sure they are inserted in the correct orientation (see page 11).
- Replace the batteries with a new set (see page 11).

---

### **The remote doesn't control the TV or change the volume**

- You need to ensure your remote control is set-up correctly to control your TV. – see page 18. This will be necessary whenever you change the batteries.

---

### **The HDT-610R didn't record a programme**

- Check that the aerial cable is connected.
- Check that your hard disk has sufficient space for further recordings (see page 39). To make space, delete some old recordings that you have already viewed.
- The unit should tell you if your scheduled recordings use more resources than the product can support – check the scheduled recording (see page 41) and make changes if necessary.
- Did the unit have power when the programme is scheduled to be transmitted? The HDT-610R will wake from standby to record a programme but it must have power to be able to do this.

---

### **iPlayer isn't available**

- Check that your HDT-610R is connected to your router and that the Ethernet cables are firmly inserted at both ends.
- Check there is a broadband connection available by looking at the network settings (see page 41). Can you access the Internet from other devices?
- Check to make sure you are meeting the system requirements to use iPlayer by visiting the help section at [www.bbc.co.uk/iplayer/](http://www.bbc.co.uk/iplayer/).
- If you are experiencing issues with connecting and using BBC iPlayer, visit [www.myechostar.com/support](http://www.myechostar.com/support).

---

### **On Demand App doesn't work**

- Check that your HDT-610R is connected to your router and that the Ethernet cables are firmly inserted at both ends.
  - Check there is a broadband connection available by looking at the network settings (see page 41). Can you access the Internet from other devices?
  - Try accessing the BBC iPlayer on your HDT-610R to verify your internet connection.
  - Contact your Internet Service Provider if there is a problem.
  - If you are experiencing issues with connecting and using the On Demand services, visit [www.myechostar.com/support](http://www.myechostar.com/support).
- 

### **No channels found during installation**

- Contact your aerial installer if there is no signal and you are satisfied that the connection to the unit is sound.

## **Contacting Customer Support**

For the latest product information, technical support, downloads and updates please visit:

[www.myechostar.com/support](http://www.myechostar.com/support)

or call our Customer Helpline on 0845 123 3003.

## 7. Remote Control TV Codes

Search the table in this section for your TV manufacturer. Make a note of the control code (or codes) used by the manufacturer. Use the procedure described on page 18 to program your remote control:

If the manufacturer of your TV is not listed, or the specified code does not work use the following procedure to scan through all programmed remote codes.

1. Switch your TV on.
2. Point the remote at the TV. Hold down both the CH+ and VOL- simultaneously (see above) for at least 2 seconds. The blue LED gives two slow flashes to indicate successful entry into setup mode.
3. Press . The blue LED is turned on.
4. Press  repeatedly until the TV switches off.
5. Press . The blue LED gives two slow flashes to indicate that the code has been stored successfully.

If your TV does not turn off then it is not supported in the remote's database.

# TV Manufacturers' Control Codes

| Manufacturer  | Control Code(s)                                                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| ACCENT        | 0301 2551 2791 3601                                                                                                                           |
| ACCUPHASE     | 2791                                                                                                                                          |
| ACEC          | 2741                                                                                                                                          |
| ACTION        | 0051 0301 2391                                                                                                                                |
| ADCOM         | 2711                                                                                                                                          |
| ADMIRAL       | 0051 0301 0721 0981 1131 1571<br>2571 3661 3831 3881                                                                                          |
| ADYSON        | 0051 2391 3911 3921                                                                                                                           |
| AEA           | 2551 2791                                                                                                                                     |
| AEG           | 3531 3681                                                                                                                                     |
| AGASHI        | 3831 3911 3921                                                                                                                                |
| AGEF          | 2571                                                                                                                                          |
| AIKO          | 0301 2551 2751 2791 3601 3831<br>3891 3911 3921                                                                                               |
| AIM           | 2551 2791 3681 3721 3841                                                                                                                      |
| AKAI          | 0051 0301 0671 0741 0851 0871<br>0991 1001 1491 2371 2391 2551<br>2751 2791 3331 3541 3601 3681<br>3711 3721 3831 3881 3891 3901<br>3911 3921 |
| AKASHI        | 3601                                                                                                                                          |
| AKIBA         | 2551 2791                                                                                                                                     |
| AKITO         | 2551 2791                                                                                                                                     |
| AKURA         | 0051 0301 0891 2551 2791 3541<br>3601 3831                                                                                                    |
| ALARON        | 3911                                                                                                                                          |
| ALBA          | 0051 0301 1181 1571 1681 2541<br>2551 2791 3541 3601 3881 3911                                                                                |
| ALBIRAL       | 1691                                                                                                                                          |
| ALFA          | 0051                                                                                                                                          |
| ALLORGAN      | 1901 3921                                                                                                                                     |
| ALLSTAR       | 0051 2551 2791                                                                                                                                |
| AMPLIVISION   | 1181 3921                                                                                                                                     |
| AMSTRAD       | 0301 0981 2551 2791 3601 3831                                                                                                                 |
| ANAM          | 2551 2791 3601 3611                                                                                                                           |
| ANAM NATIONAL | 2551 2791 3611                                                                                                                                |
| ANDERSSON     | 3531                                                                                                                                          |
| ANGLO         | 0301 3601 3831                                                                                                                                |
| ANITECH       | 0051 0301 1111 2391 2551 2581                                                                                                                 |

| Manufacturer   | Control Code(s)                                                        |
|----------------|------------------------------------------------------------------------|
|                | 2791 3601 3831                                                         |
| ANSONIC        | 0301 1181 2551 2581 2631 2741<br>2791 3601 3881                        |
| AOC            | 0051 2391                                                              |
| AR SYSTEM      | 1741 2551 2791                                                         |
| ARC EN CIEL    | 1991 2341 2591 2641 2681                                               |
| ARCAM          | 2641 3911 3921                                                         |
| ARDEM          | 2551 2791 3541                                                         |
| ARISTONA       | 0051 2471 2551 2741 2791                                               |
| ART TECH       | 0051                                                                   |
| ARTHUR-MARTIN  | 0771 3881                                                              |
| ASA            | 1101 1371 1381 1471 2571 3881                                          |
| ASBERG         | 0051 1111 1571 2551 2581 2791                                          |
| ASORA          | 0301 3601                                                              |
| ASTRA          | 0301 2551 2791                                                         |
| ASUKA          | 3831 3911 3921                                                         |
| ATD            | 3841                                                                   |
| ATLANTIC       | 0051 1901 2551 2791 3911                                               |
| ATORI          | 0301 3601                                                              |
| ATORO          | 0301                                                                   |
| AUCHAN         | 0771 3881                                                              |
| AUDIOSONIC     | 0051 0301 1181 2551 2591 2631<br>2791 3331 3541 3601 3831 3921         |
| AUDIOTON       | 0301 1181 3831 3921                                                    |
| AUDIOVOX       | 0051                                                                   |
| AUDIOWORLD     | 3841                                                                   |
| AUMARK         | 3811                                                                   |
| AUTOVOX        | 1891 1901 2481 2571 2771 3921                                          |
| AWA            | 0301 2411 2531 2541 2551 2631<br>2791 3601 3681 3831 3911 3921<br>4141 |
| AXXENT         | 3601                                                                   |
| AXXON          | 3541                                                                   |
| BAIRD          | 2591 2621 2801 3681 3721 3921                                          |
| BANG & OLUFSEN | 2281 2571                                                              |
| BARCO          | 3881                                                                   |
| BASIC LINE     | 0051 0061 0301 2551 2631 2791<br>3601 3881 3921                        |

| Manufacturer        | Control Code(s)                                                                                                   |
|---------------------|-------------------------------------------------------------------------------------------------------------------|
| BASTIDE             | 3921                                                                                                              |
| BAUER               | 3601 3831 3841                                                                                                    |
| BAUR                | 0051 0181 0301 0411 0421 0431<br>0441 0471 0791 1281 1291 1301<br>2551 2691 2721 2751 2771 2781<br>2791 3601 3891 |
| BAZIN               | 3921                                                                                                              |
| BBK                 | 3151 3161 3171 3181                                                                                               |
| BEAUMARK            | 3711                                                                                                              |
| BEC                 | 0051                                                                                                              |
| BECRESE             | 0051 2391                                                                                                         |
| BEKO                | 0051 1181 1621 2021 2551 2791<br>3331 3541 3681                                                                   |
| BELL & HOWELL       | 0051                                                                                                              |
| BELSON              | 3851                                                                                                              |
| BENCHMARK-BEAUMARK  | 0051 0301 2391                                                                                                    |
| BEON                | 0051 1571 2551 2791                                                                                               |
| BEST                | 1181                                                                                                              |
| BESTAR              | 0051 0801 1181 2551 2631 2791                                                                                     |
| BESTAR-DAEWOO       | 2631                                                                                                              |
| BIGSTON             | 0301                                                                                                              |
| BINATONE            | 3921                                                                                                              |
| BLACK DIAMOND       | 2791 3531                                                                                                         |
| BLACK PANTHER       | 2581                                                                                                              |
| BLAUPUNKT           | 1231 1241 1251 1271 1281 1301<br>1321 1341 2371 2441 2451 2751<br>3701                                            |
| BLAUPUNLET          | 2781                                                                                                              |
| BLUE SKY            | 0051 2551 2791 3331 3541 3851                                                                                     |
| BONDSTEC            | 2481 3601 3921                                                                                                    |
| BOSCH               | 2441                                                                                                              |
| BPL                 | 2551 2791                                                                                                         |
| BRANDT              | 1991 2591 2601 2611 2621 2641<br>2661 2681 2711                                                                   |
| BRANDT ELECTRONIQUE | 1801 1851 1991 2341 2601 2611<br>2681                                                                             |
| BRENDSTAR           | 0301                                                                                                              |
| BRINKMANN           | 0051 1571 2551 2791                                                                                               |
| BRIONVEGA           | 0051 0981 2551 2571 2791                                                                                          |
| BRIORRYEGA          | 0051                                                                                                              |

| Manufacturer | Control Code(s)                                                                            |
|--------------|--------------------------------------------------------------------------------------------|
| BRITANNIA    | 3911 3921                                                                                  |
| BROCKWOOD    | 2391                                                                                       |
| BROKSONIC    | 2391                                                                                       |
| BROTHER      | 3831                                                                                       |
| BRUNS        | 2571                                                                                       |
| BSR          | 0621 0751 3881 3891                                                                        |
| BUSH         | 0051 0621 0871 1681 2541 2551<br>2631 2771 2791 3541 3601 3721<br>3831 3841 3881 3891 3921 |
| CAMERON      | 3021 3031 3061                                                                             |
| CAMPLE       | 2391                                                                                       |
| CANDLE       | 2391                                                                                       |
| CAPEHART     | 0051 2391                                                                                  |
| CAPSONIC     | 3831                                                                                       |
| CARAD        | 2551 2791                                                                                  |
| CARENA       | 2551 2791                                                                                  |
| CARREFOUR    | 0051 2541 2551 2791                                                                        |
| CARVER       | 0051 3701                                                                                  |
| CASCADE      | 2551 2791 3601                                                                             |
| CASIO        | 2551 2771 2791 3881                                                                        |
| CATHAY       | 0051 2551 2791                                                                             |
| CCE          | 2551 2791 3921                                                                             |
| CENTURION    | 0051 2551 2791                                                                             |
| CENTURY      | 2201 2571 2761                                                                             |
| CGE          | 0301 0691 0871 1111 1181 1571<br>2201 2461 2641 3881                                       |
| CGM          | 0301                                                                                       |
| CIE          | 0301                                                                                       |
| CIMLINE      | 0301 3601                                                                                  |
| CIRCUIT CITY | 2391                                                                                       |
| CITIZEN      | 0051 2391 3811                                                                             |
| CITY         | 0301 3601                                                                                  |
| CLARIVOX     | 2171 2551 2581 2791                                                                        |
| CLATRONIC    | 0301 1111 1181 2191 2201 2551<br>2581 2791 3531 3541 3601 3681<br>3831 3921                |
| CMS          | 3911                                                                                       |
| CMS HIGHTEC  | 3921                                                                                       |
| COLORTYME    | 0051                                                                                       |

| Manufacturer       | Control Code(s)                                                                  |
|--------------------|----------------------------------------------------------------------------------|
| COMPUTRON          | 0301                                                                             |
| CONCORDE           | 0301 3601                                                                        |
| CONDOR             | 0051 0301 1181 1571 2551 2581<br>2791 3601 3831 3881 3911                        |
| CONIC              | 0051 2391                                                                        |
| CONRAD             | 2551 2791                                                                        |
| CONTEC             | 0301 2531 2541 2551 2791 3601<br>3831 3911                                       |
| CONTINENTAL EDISON | 0331 1801 1991 2341 2601 2641<br>2681                                            |
| CORONADO           | 2391                                                                             |
| COSMEL             | 0301 2551 2791 3601                                                              |
| CRAIG              | 0051                                                                             |
| CROSLEY            | 0051 0701 1111 2201 2571 3881                                                    |
| CROWN              | 0051 0301 1111 1181 2391 2551<br>2791 3331 3541 3601 3681 3691<br>3721           |
| CRYSTAL            | 0051                                                                             |
| CS ELECTRONICS     | 3911                                                                             |
| CTC CLATRONIC      | 1571                                                                             |
| CURTIS MATHES      | 0051 2391 3661 3811                                                              |
| DAEWOO             | 0051 0271 0281 0291 0301 1751<br>2391 2551 2631 2791 3541 3601<br>3841 3911 3921 |
| DAICHI             | 0301                                                                             |
| DAINICHI           | 3911                                                                             |
| DANSAI             | 2391 2541 2551 2791 3601 3721<br>3831 3911 3921                                  |
| DANTAX             | 1181 3331 3541 3681                                                              |
| DATSURA            | 3721                                                                             |
| DAWA               | 0051 2551 2791 3601                                                              |
| DAYTEK             | 3831 3841                                                                        |
| DAYTRON            | 0301 2391 2551 2631 2791 3601                                                    |
| DE GRAAF           | 3721 3881 3901                                                                   |
| DECCA              | 0051 2141 2551 2791 3921                                                         |
| DEITRON            | 2551 2631 2791                                                                   |
| DENKO              | 3831                                                                             |
| DENVER             | 0301 2551 2791 3681 3861                                                         |
| DER                | 2801                                                                             |
| DESMET             | 0051 0301 2551 2571 2791 3601                                                    |
| DIAMANT            | 2551 2791                                                                        |

| Manufacturer | Control Code(s)                                                        |
|--------------|------------------------------------------------------------------------|
| DIAMOND      | 0301 3601 3831 3841 3911                                               |
| DIGILINE     | 2551 2791                                                              |
| DIGILOGIC    | 3951                                                                   |
| DIGITOR      | 2551 2791 3891                                                         |
| DIK          | 2551 2791                                                              |
| DIXI         | 0051 0301 2551 2571 2791 3601<br>3921                                  |
| DL           | 3861                                                                   |
| DORIC        | 2771                                                                   |
| DSE          | 2871 2881 2891 2901 2911 2921                                          |
| DTS          | 0301 3601                                                              |
| DUAL         | 0051 0051 0301 0981 1161 2491<br>2551 2621 2641 2771 2791 3881<br>3921 |
| DUMONT       | 1571 2391 2571 2581 3921                                               |
| DUNAI        | 3881                                                                   |
| DUX          | 2551 2741 2791                                                         |
| D-VISION     | 2551 2791                                                              |
| DYNAMIC      | 0301                                                                   |
| DYNATECH     | 2391                                                                   |
| DYNATRON     | 2551 2741 2791                                                         |
| E:MAX        | 3681                                                                   |
| ECCO         | 3841                                                                   |
| EDISON       | 2591                                                                   |
| ELBE         | 0711 0981 1151 1181 2171 2551<br>2751 2761 2791 3881 3891 3921         |
| ELBIT        | 0051                                                                   |
| ELCIT        | 2571 2581 3881                                                         |
| ELECS        | 0051                                                                   |
| ELECTRATUNE  | 2391                                                                   |
| ELECTRO TECH | 0301                                                                   |
| ELECTROHOME  | 2391                                                                   |
| ELECTRONIKA  | 0051                                                                   |
| ELEKTA       | 0301 2551 2791 3601 3831                                               |
| ELEKTRONIKA  | 0051                                                                   |
| ELENBERG     | 3001 3011 3051                                                         |
| ELG          | 2551 2791                                                              |
| ELIN         | 0051 0301 2551 2771 2791 3601<br>3881 3891 3901 3911                   |

| Manufacturer  | Control Code(s)                                                                                                                                    |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| ELITE         | 0051 2391 2551 2791                                                                                                                                |
| ELMAN         | 2021 2581                                                                                                                                          |
| ELTA          | 0301 0801 3601 3831 3911                                                                                                                           |
| EMERSON       | 1181 2391 2551 2571 2791 3541<br>3711 3881 3891                                                                                                    |
| ENERGY SISTEM | 2821 2831                                                                                                                                          |
| ERRES         | 0051 2471 2551 2741 2791                                                                                                                           |
| ESC           | 2551 2791 3921                                                                                                                                     |
| ESTELE        | 3881                                                                                                                                               |
| ETRON         | 0301 0861 2551 2791 3591 3601<br>3881                                                                                                              |
| EUROFEEL      | 3831 3921                                                                                                                                          |
| EUROMAN       | 1181 2551 2791 3831 3911 3921                                                                                                                      |
| EUROMANN      | 0051                                                                                                                                               |
| EUROPA        | 2551 2791                                                                                                                                          |
| EUROPHON      | 0051 2151 2551 2581 2791 3881<br>3911 3921                                                                                                         |
| EXCEL         | 2551 2791                                                                                                                                          |
| EXPERT        | 0771 1901 2011 3881                                                                                                                                |
| EXPERT (F)    | 0771 2011                                                                                                                                          |
| EXQUISIT      | 2551 2791                                                                                                                                          |
| Eye TV        | 4151                                                                                                                                               |
| FAIRTEC       | 3851                                                                                                                                               |
| FAMILY LIFE   | 2551 2791                                                                                                                                          |
| FENNER        | 0301 2631 3601                                                                                                                                     |
| FERGUSON      | 1591 1841 1851 1921 1931 1941<br>1951 2021 2061 2131 2171 2411<br>2551 2591 2601 2611 2621 2661<br>2701 2711 2761 2791 2801 3691<br>3891 3901 4161 |
| FIDELIS       | 0301                                                                                                                                               |
| FIDELITY      | 0841 2551 2791 2801 3831 3881<br>3891 3911                                                                                                         |
| FILSAI        | 0301 3921                                                                                                                                          |
| FINLANDIA     | 1051 1471 2601 2621 3721 3881<br>3891 3901                                                                                                         |
| FINLUX        | 0051 0301 0621 1081 1101 1371<br>1381 1441 1451 1461 1471 1501<br>1521 1571 1821 2141 2551 2571<br>2581 2791 3331 3541 3681 3881<br>3921           |
| FIRST LINE    | 0051 0301 2551 2581 2631 2761<br>2771 2791                                                                                                         |
| FIRSTLINE     | 3531 3541 3601 3721 3851 3881                                                                                                                      |

| Manufacturer     | Control Code(s)                                           |
|------------------|-----------------------------------------------------------|
|                  | 3891 3911 3921                                            |
| FISHER           | 0261 1181 2221 2311 2541 2571<br>2771 3721 3881 3891 3921 |
| FLINT            | 0051 2551 2791 3831                                       |
| FNR              | 2581                                                      |
| FORGESTONE       | 2801                                                      |
| FORMENTI         | 0051 2551 2571 2791 3881 3911                             |
| FORMENTI-PHOENIX | 3911                                                      |
| FORTRESS         | 2391 2571 3661                                            |
| FRABA            | 1181 2551 2791                                            |
| FRIAC            | 1181 2551 2581 2791 3601                                  |
| FRONTECH         | 0301 2401 2771 3601 3831 3881<br>3921                     |
| FUBA             | 1641                                                      |
| FUJITSU          | 0751 1901 2391 2551 2581 2791<br>3601 3651 3881 3891 3921 |
| FUJITSU GENERAL  | 0751 0981 1901 3601 3881 3921                             |
| FUJITSU SIEMENS  | 3531                                                      |
| FUNAI            | 0301 2391 3831                                            |
| FUTRONIC         | 3831 3841                                                 |
| FUTURE           | 2551 2791                                                 |
| GALAXI           | 2551 2581 2791 3881 3891                                  |
| GALAXIS          | 1181 1571 2551 2581 2791                                  |
| GALAXY           | 1181 1571                                                 |
| GALERIA          | 0301 3601                                                 |
| GBC              | 0301 0701 0721 2161 2631 3601<br>3881                     |
| GE               | 2591 2601 2611 2621 2701 3711                             |
| GEANT CASINO     | 3881                                                      |
| GEANT CASIONO    | 0771                                                      |
| GEC              | 0661 2551 2561 2771 2791 3881<br>3891 3921                |
| GELOSO           | 0301 2201 2631 3601 3881                                  |
| GEMSOUND         | 0301                                                      |
| GENERAL          | 0301 2591 2601 2661                                       |
| GENERAL ELECTRIC | 2601 2621                                                 |
| GENERAL TECHNIC  | 0301 3601                                                 |
| GENESIS          | 3601                                                      |

| Manufacturer | Control Code(s)                                                                                                                                                                                         | Manufacturer     | Control Code(s)                                                                                                                        |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| GENEXXA      | 0051 2551 2791 3601 3881                                                                                                                                                                                | HANTAREX         | 0051 0301 2161 2551 2581 2791 3601                                                                                                     |
| GIANT        | 3601 3921                                                                                                                                                                                               | HANTOR           | 2551 2791                                                                                                                              |
| GITEM        | 0051                                                                                                                                                                                                    | HARLEY DAVIDSON  | 2391 2561                                                                                                                              |
| GM           | 0301                                                                                                                                                                                                    | HARRAD           | 2391                                                                                                                                   |
| GMG          | 0301 1571                                                                                                                                                                                               | HARVARD          | 2391                                                                                                                                   |
| GOLDHAND     | 0301 3911                                                                                                                                                                                               | HARWOOD          | 2551 2791 3601                                                                                                                         |
| GOLDSTAR     | 0051 0301 0621 1131 1181 1241 1631 2391 2481 2551 2591 2791 3331 3541 3591 3601 3681 3711 3881 3891 3911 3921                                                                                           | HAUPPAUGE        | 2551 2791                                                                                                                              |
| GOODMANS     | 0051 0301 1681 1951 2321 2541 2551 2611 2621 2631 2701 2791 3541 3601 3831 3861 3921                                                                                                                    | HCM              | 0301 2551 2791 3601 3831 3921                                                                                                          |
| GORENJE      | 1181                                                                                                                                                                                                    | HEATHKIT         | 0051                                                                                                                                   |
| GPM          | 0301                                                                                                                                                                                                    | HEDZON           | 2551 2791                                                                                                                              |
| GRADIENTE    | 2551 2791 3691 3701                                                                                                                                                                                     | HEMA             | 3601 3921                                                                                                                              |
| GRADIN       | 0051 0301                                                                                                                                                                                               | HEMMERMANN       | 2771                                                                                                                                   |
| GRAETZ       | 0661 0731 0861 1051 2551 2791 3531 3541 3881 3891                                                                                                                                                       | HIFIVOX          | 1991 2341 2591 2641 2681                                                                                                               |
| GRANADA      | 0051 0361 0641 0931 0951 1511 1951 2411 2541 2551 2611 2621 2701 2741 2791 3721 3881 3901 3921                                                                                                          | HIGASHI          | 3911                                                                                                                                   |
| GRANDIN      | 0771 2011 2551 2631 2791 3251 3261 3271 3281 3291 3301 3311 3321 3331 3341 3351 3361 3371 3381 3391 3401 3411 3421 3431 3441 3451 3461 3471 3481 3491 3501 3511 3521 3541 3551 3561 3571 3601 3851 3881 | HIGHLINE         | 2551 2791 3831                                                                                                                         |
| GRENADEIER   | 0301                                                                                                                                                                                                    | HILINE           | 0301                                                                                                                                   |
| GRONIC       | 2581 3881 3921                                                                                                                                                                                          | HINARI           | 0051 0301 0861 2321 2541 2551 2791 3601 3721 3831 3881                                                                                 |
| GRUNDIG      | 0331 1181 1211 1221 1231 1241 1251 1261 1271 1281 1301 1311 1321 1331 1341 1351 2541 2551 2751 2781 2791 3601 3711 3861 3961                                                                            | HISAWA           | 3541                                                                                                                                   |
| GRUNKEL      | 3531                                                                                                                                                                                                    | HISENSE          | 3721 3841                                                                                                                              |
| GTT          | 0301 1571                                                                                                                                                                                               | HIT              | 2571                                                                                                                                   |
| HAIER        | 3831 3841                                                                                                                                                                                               | HITACHI          | 0051 0631 0661 0671 0781 0791 0921 0991 1051 1501 1791 1991 2391 2411 2521 2541 2551 2561 2591 2621 2771 2791 3711 3881 3891 3901 3921 |
| HALIFAX      | 3831 3911 3921                                                                                                                                                                                          | HITACHI FUJIAN   | 2411                                                                                                                                   |
| HALLMARK     | 2391                                                                                                                                                                                                    | HITSU            | 3601                                                                                                                                   |
| HAMMERSTEIN  | 3811 3831                                                                                                                                                                                               | HMV              | 2571                                                                                                                                   |
| HAMPTON      | 3911 3921                                                                                                                                                                                               | HOHER            | 3531 3541                                                                                                                              |
| HANSEATIC    | 0051 0301 1161 1181 2551 2571 2771 2791 3541 3601 3881 3891 3921                                                                                                                                        | HOME ELECTRONICS | 3681                                                                                                                                   |
|              |                                                                                                                                                                                                         | HORIZONT         | 0051 3091 3101 3131 3141                                                                                                               |
|              |                                                                                                                                                                                                         | HORNYPHON        | 0051                                                                                                                                   |
|              |                                                                                                                                                                                                         | HORNYPHONE       | 2551 2741 2791                                                                                                                         |
|              |                                                                                                                                                                                                         | HUANYU           | 2631 3911                                                                                                                              |
|              |                                                                                                                                                                                                         | HUMAX            | 3971 3981 3991 4001 4011 4021 4031                                                                                                     |
|              |                                                                                                                                                                                                         | HUSPI ELEKTRONIK | 1571                                                                                                                                   |
|              |                                                                                                                                                                                                         | HYGASHI          | 3911 3921                                                                                                                              |

| Manufacturer  | Control Code(s)                                                                                                   |
|---------------|-------------------------------------------------------------------------------------------------------------------|
| HYPER         | 0301 2481 3601 3911 3921                                                                                          |
| HYPersonic    | 3891                                                                                                              |
| HYPSON        | 0051 0301 2551 2761 2791 3331<br>3541 3831 3921                                                                   |
| HYUNDAI       | 3841                                                                                                              |
| IBERIA        | 2551 2791                                                                                                         |
| ICE           | 0051 0301 2551 2791 3601 3831<br>3911 3921                                                                        |
| ICES          | 3911                                                                                                              |
| ICOS          | 2741                                                                                                              |
| ICT           | 2551 2791                                                                                                         |
| IMA           | 2391                                                                                                              |
| IMPERIAL      | 0051 0611 0691 0871 1111 1181<br>1571 2201 2551 2771 2791 3881<br>3891                                            |
| INDIANA       | 0051 2551 2791                                                                                                    |
| INFINITY      | 0051                                                                                                              |
| INGELEN       | 1621 3541 3881 3891                                                                                               |
| INGERSOLL     | 0301 3601                                                                                                         |
| INNO HIT      | 0051 0301 1131 2151 2551 2581<br>2791 3531 3601 3921                                                              |
| INNOHIT       | 0051 0301 1131                                                                                                    |
| INNOVATION    | 0051 2551 2791                                                                                                    |
| INTERACTIVE   | 1181 2551 2571 2591 2681 2741<br>2791 3881 3891                                                                   |
| INTERBUY      | 0301 2551 2791 3601 3831                                                                                          |
| INTERDISCOUNT | 0051                                                                                                              |
| INTERFUNK     | 0051 0661 0741 0861 0901 1181<br>1571 2231 2241 2441 2451 2471<br>2551 2571 2591 2681 2741 2771<br>2791 3881 3891 |
| INTERNAL      | 2551 2631 2791                                                                                                    |
| INTERNATIONAL | 3911                                                                                                              |
| INTERVISION   | 0051 0801 1181 2551 2581 2791<br>3601 3831 3881 3921                                                              |
| IRRADIO       | 0051 0301 1081 1131 2481 2551<br>2791 3601                                                                        |
| IST           | 0051                                                                                                              |
| ISUKAI        | 0051 2551 2791                                                                                                    |
| ITC           | 3921                                                                                                              |
| ITL           | 0301                                                                                                              |
| ITS           | 0301 2551 2791 3601 3831 3911                                                                                     |

| Manufacturer  | Control Code(s)                                                             |
|---------------|-----------------------------------------------------------------------------|
| ITT           | 0721 0911 2771 2801 3721 3881<br>3891 3901                                  |
| ITT           | NOKIA 2771 3681 3721 3881 3891<br>3901                                      |
| ITV           | 2551 2631 2791 3831                                                         |
| JBL           | 0051                                                                        |
| JEAN          | 2541                                                                        |
| JETPOINT      | 0051                                                                        |
| JINLIPU       | 0301                                                                        |
| JMB           | 2551 2631 2791                                                              |
| JOCEL         | 0091 0221 0231 0341                                                         |
| JULIBEE       | 2791                                                                        |
| JUMBOTRONIC   | 0051                                                                        |
| JVC           | 0051 0491 0501 0511 0521 0531<br>0541 0551 2541 2801 3611 3661<br>3681 3691 |
| KAISER        | 0051                                                                        |
| KAISUI        | 0051 0301 2551 2791 3601 3911<br>3921                                       |
| KAMP          | 3911                                                                        |
| KAPSCH        | 0661 1901 3881 3891                                                         |
| KARCHER       | 0051 0301 1181 2551 2581 2791<br>3541 3681 3831 3881                        |
| KATHREIN      | 2551 2791                                                                   |
| KAWASHO       | 3911                                                                        |
| KB ARISTOCRAT | 3881                                                                        |
| KENDO         | 0051 0301 0711 0981 1181 1901<br>2551 2581 2791 3881                        |
| KENNEDY       | 0981 1901 3881                                                              |
| KENWOOD       | 2391                                                                        |
| KIC           | 3921                                                                        |
| KINGSLEY      | 3911                                                                        |
| KIOTA         | 0301 3591                                                                   |
| KITION        | 2791                                                                        |
| KITON         | 2551                                                                        |
| KLH           | 2391                                                                        |
| KNEISSEL      | 1161 1181 2551 2631 2761 2791                                               |
| KOBIC         | 0301                                                                        |
| KOLSTER       | 0051 2551 2581 2771 2791                                                    |
| KONICHI       | 0301 3601                                                                   |

| Manufacturer    | Control Code(s)                                                                                                        |
|-----------------|------------------------------------------------------------------------------------------------------------------------|
| KÖNIG           | 1981                                                                                                                   |
| KONKA           | 2551 2791 2971 2981 2991 3541<br>3681 3861                                                                             |
| KORPEL          | 0051 2551 2791                                                                                                         |
| KORTING         | 1181 2211 2241 2571                                                                                                    |
| KÖRTING         | 2211 2241                                                                                                              |
| KOSMOS          | 2551 2791                                                                                                              |
| KOTRON          | 3831                                                                                                                   |
| KOYODA          | 3601                                                                                                                   |
| KRAKING         | 2761                                                                                                                   |
| KRIESLER        | 2741                                                                                                                   |
| KTV             | 2391 3921                                                                                                              |
| KUASHO          | 0051 2391                                                                                                              |
| KUBA            | 2771 3881                                                                                                              |
| KUBA ELECTRONIC | 2771 3881                                                                                                              |
| KYOSHU          | 3831                                                                                                                   |
| KYOTO           | 3881 3911 3921                                                                                                         |
| L&S ELECTRONIC  | 3541                                                                                                                   |
| LASAT           | 1181                                                                                                                   |
| LAVIS           | 3881                                                                                                                   |
| LEADER          | 0301 3601                                                                                                              |
| LECSON          | 2551 2791                                                                                                              |
| LEGEND          | 0301 3601                                                                                                              |
| LENCO           | 0051 0301 0321 2551 2631 2791<br>3601 3861 3881                                                                        |
| LENOIR          | 0301 3601                                                                                                              |
| LEVIS AUSTRIA   | 2551 2791                                                                                                              |
| LEYCO           | 0051 2551 2791 3831                                                                                                    |
| LG              | 1181 2551 2591 2791 2931 2941<br>2951 2961 3191 3331 3541 3591<br>3601 3681 3711 3731 3841 3851<br>3881 3891 3911 3921 |
| LIESENK & TTER  | 2551 2791                                                                                                              |
| LIESENKOTTER    | 0051 2551 2741 2791                                                                                                    |
| LIESENKÖTTER    | 0051 2441                                                                                                              |
| LIFE            | 0301                                                                                                                   |
| LIFETEC         | 0051 0301 2551 2631 2791 3541<br>3601 3831                                                                             |
| LINITRON        | 2391                                                                                                                   |
| LLOYD           | 2391                                                                                                                   |

| Manufacturer  | Control Code(s)                                                                                                                          |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------|
| LLOYD'S       | 0301 3591 3601                                                                                                                           |
| LOEWE         | 0051 1181 2251 2551 2571 2791                                                                                                            |
| LOGIK         | 2531 2551 2791 2801 3591 3601<br>3811 3831 3841                                                                                          |
| LÖGIK         | 0251 2351                                                                                                                                |
| LOGIX         | 0051                                                                                                                                     |
| LUMA          | 0051 0301 0721 0981 1901 2551<br>2631 2791 3601 3881                                                                                     |
| LUMATRON      | 2551 2791 3831 3881 3891 3921                                                                                                            |
| LUX MAY       | 0051 2551 2791 3601                                                                                                                      |
| LUXOR         | 0631 0671 0741 0781 0791 0811<br>0901 0991 1001 1031 1041 1051<br>1131 1371 1441 1471 1501 1521<br>2771 3531 3721 3881 3891 3901<br>3921 |
| LUXOR SALORA  | 2001                                                                                                                                     |
| LUXOR/SKANTIC | 0991                                                                                                                                     |
| LXI           | 0051 3711                                                                                                                                |
| M ELECTRONIC  | 0301 1501                                                                                                                                |
| M ELECTRONICS | 0051 0301 1471 2021                                                                                                                      |
| MACYS         | 2391                                                                                                                                     |
| MADISON       | 2551 2791                                                                                                                                |
| MAGNADYNE     | 0051 0301 0701 1571 2151 2191<br>2201 2571 2581 3881                                                                                     |
| MAGNAFON      | 2151 2581 3911                                                                                                                           |
| MAGNASONIC    | 0051 0301 2391                                                                                                                           |
| MAGNAVOX      | 0051 2541 2551 2791                                                                                                                      |
| MAGNUM        | 0171 2551 2791 3331 3541                                                                                                                 |
| MANDOR        | 3831                                                                                                                                     |
| MANESTH       | 0051 2551 2791 3831 3881 3921                                                                                                            |
| MANHATTAN     | 2551 2791 3881                                                                                                                           |
| MARANTZ       | 0051 2551 2791                                                                                                                           |
| MARELLI       | 2571                                                                                                                                     |
| MARK          | 0051 2551 2631 2791 3331 3541<br>3601 3911 3921                                                                                          |
| MASUDA        | 2551 2791 3601 3831 3921                                                                                                                 |
| MATSUI        | 0051 0301 0311 0331 0611 1241<br>1731 2531 2541 2551 2611 2751<br>2771 2791 3541 3601 3721 3881<br>3921                                  |
| MATSUSHITA    | 3611                                                                                                                                     |
| MATSUVIAMA    | 3861                                                                                                                                     |

| Manufacturer       | Control Code(s)                                                                       |
|--------------------|---------------------------------------------------------------------------------------|
| MAVA               | 2391                                                                                  |
| MAXAM              | 0301 3831                                                                             |
| MAXDORF            | 3831 3841                                                                             |
| MAXELL             | 0301                                                                                  |
| MCE                | 0301 3601                                                                             |
| MCMICHAEL          | 2561                                                                                  |
| MEDIATOR           | 0051 2471 2551 2741 2791                                                              |
| MEDION             | 0051 0201 2551 2791 3541 3841                                                         |
| MEGATRON           | 3711                                                                                  |
| MELECTRONIC        | 1411 1541 2551 2591 2601 2621<br>2631 2751 2771 2791 3541 3601<br>3881 3891 3911 3921 |
| MEMOREX            | 0301 3601 3611 3711 3811                                                              |
| MEMPHIS            | 0301 3601                                                                             |
| MERCURY            | 0301 2551 2791 3591 3601 3811<br>3831 3841                                            |
| MERRITT            | 3881 3891 3901                                                                        |
| METZ               | 1191 1201 1241 1281 1301 1331<br>2231 2551 2571 2751 2781 2791<br>3531 3861           |
| MGA                | 2551 2791 3711                                                                        |
| MICROMAXX          | 2551 2791                                                                             |
| MICROTEK           | 3831 3841                                                                             |
| MIDLAND            | 2391                                                                                  |
| MIKOMI             | 3531                                                                                  |
| MINATO             | 2551 2791                                                                             |
| MINERVA            | 1241 1301 2411 2751 2781                                                              |
| MINOKA             | 0051 2551 2791                                                                        |
| MISTRAL ELECTRONIC | 2801                                                                                  |
| MITSUBISHI         | 0051 0301 2301 2311 2411 2421<br>2511 2541 2551 2571 2791 2801<br>3661 3711 3721      |
| MITSURI GENERAL    | 3881                                                                                  |
| MIVAR              | 1131 1151 1161 1181 1611 2161<br>2181 3911 3921                                       |
| MONACO             | 3601                                                                                  |
| MORGAN'S           | 2551 2791                                                                             |
| MOTOROLA           | 0051 3661                                                                             |
| MTC                | 1181 2391 2771 3581 3811 3881<br>3891 3911                                            |
| MTLOGIC            | 3541                                                                                  |

| Manufacturer   | Control Code(s)                                                                                                                                                                                    |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MULTIBROADCAST | 2801                                                                                                                                                                                               |
| MULTISTANDARD  | 2581                                                                                                                                                                                               |
| MULTITEC       | 2551 2791                                                                                                                                                                                          |
| MULTITECH      | 0051 0301 1111 1181 2391 2551<br>2581 2771 2791 3601 3831 3911<br>3921                                                                                                                             |
| MURPHY         | 3881 3911                                                                                                                                                                                          |
| MUSIKLAND      | 2551 2791                                                                                                                                                                                          |
| MYCOM          | 3711                                                                                                                                                                                               |
| MYRYAD         | 2551 2791                                                                                                                                                                                          |
| NAD            | 3711 3881 3891                                                                                                                                                                                     |
| NAIKO          | 2551 2791 3681                                                                                                                                                                                     |
| NAKIMURA       | 2551 2631 2791                                                                                                                                                                                     |
| NAMSUNC        | 0301                                                                                                                                                                                               |
| NAONIS         | 0721 3881                                                                                                                                                                                          |
| NATIONAL       | 0051 0351                                                                                                                                                                                          |
| NEC            | 0301 2531 2541 2551 2631 2791<br>3601 3691 3701 3861 3921                                                                                                                                          |
| NECKERMANN     | 0051 0301 0431 0441 0501 0791<br>0921 0981 1181 1241 1261 1281<br>1301 1331 2151 2441 2451 2551<br>2571 2691 2721 2751 2771 2781<br>2791 3881 3921                                                 |
| NEI            | 0051 1721 2551 2791 3881                                                                                                                                                                           |
| NETSAT         | 2551 2791                                                                                                                                                                                          |
| NEUFUNK        | 2551 2791 3541 3601                                                                                                                                                                                |
| NEW TECH       | 3601 3921                                                                                                                                                                                          |
| NEWTECH        | 0051 0301 2551 2621 2791                                                                                                                                                                           |
| NICAMAGIC      | 3911                                                                                                                                                                                               |
| NIKKAI         | 0051 2391 2541 2551 2791 3601<br>3831 3911 3921                                                                                                                                                    |
| NIKKEI         | 3541                                                                                                                                                                                               |
| NIKKO          | 1711 3711                                                                                                                                                                                          |
| NOBLEX         | 0261 0301                                                                                                                                                                                          |
| NOBLIKO        | 1081 1111 2581 3911                                                                                                                                                                                |
| NOGAMATIC      | 1991 2341 2591 2641 2681                                                                                                                                                                           |
| NOKIA          | 0241 0301 0631 0661 0671 0721<br>0731 0741 0811 0831 0861 0901<br>0931 0991 1001 1041 1051 1391<br>1401 1421 1431 1481 1501 1511<br>1521 1541 1571 1821 2591 2631<br>2771 3681 3721 3881 3891 3901 |
| NOKIA AKAI     | 0851                                                                                                                                                                                               |

| Manufacturer | Control Code(s)                                                                                                                                                                | Manufacturer  | Control Code(s)                                                                                                                                    |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| NONAME       | 0051                                                                                                                                                                           | OTTO-VERSAND  | 0051 0301 0441 0471 0561 0801<br>1241 1261 1301 1631 2021 2111<br>2371                                                                             |
| NORDIC       | 3921                                                                                                                                                                           | PACIFIC       | 0091 0101 2551 2791 3541                                                                                                                           |
| NORDMENDE    | 1791 1811 1851 1861 1871 1921<br>1961 1991 2021 2051 2341 2551<br>2591 2601 2611 2621 2641 2661<br>2681 2701 2791 3541 3881                                                    | PAEL          | 1081 3911                                                                                                                                          |
| NORFOLK      | 3881                                                                                                                                                                           | PALLADIUM     | 0051 1181 1281 2551 2571 2691<br>2721 2751 2771 2781 2791 3541<br>3881 3921                                                                        |
| NORMEREL     | 2551 2791                                                                                                                                                                      | PALSONIC      | 2551 2791 3591 3831 3841 3921                                                                                                                      |
| NOVABEAM     | 0051                                                                                                                                                                           | PANAMA        | 0301 2551 2791 3601 3831 3911<br>3921                                                                                                              |
| NOVAK        | 2741                                                                                                                                                                           | PANASHIBA     | 0301 3591                                                                                                                                          |
| NOVATRONIC   | 0051 0301 2551 2631 2791                                                                                                                                                       | PANASONIC     | 0051 0351 0361 0371 0381 0391<br>1191 2361 2371 2411 2551 2791<br>3221 3591 3611 3621 3631 3641<br>3651 3711 3811 3881 3891 3901<br>4041 4051 4061 |
| NURNBERG     | 3881 3891                                                                                                                                                                      | PANAVISION    | 2551 2791                                                                                                                                          |
| NU-TEC       | 3841                                                                                                                                                                           | PANAVOX       | 0301                                                                                                                                               |
| O GENERAL    | 0301                                                                                                                                                                           | PANORAMA      | 0301                                                                                                                                               |
| OCEANIC      | 0771 0811 0991 1051 1501 1521<br>2011 3721 3881 3891 3901                                                                                                                      | PATHE CINEMA  | 1161 1181 2761 2771 3881 3911                                                                                                                      |
| ODEON        | 3831                                                                                                                                                                           | PATHE MARCONI | 1991 2341 2591 2641 2681                                                                                                                           |
| OKANO        | 0301 1181 2551 2791 3601 3831                                                                                                                                                  | PAUSA         | 0301 3601                                                                                                                                          |
| OLYMPIC      | 0301                                                                                                                                                                           | PCE/PEC       | 2391                                                                                                                                               |
| OMEGA        | 3831 3841                                                                                                                                                                      | PENNEY        | 2391                                                                                                                                               |
| ONCEAS       | 0301                                                                                                                                                                           | PERDIO        | 2551 2791 3881 3911                                                                                                                                |
| ONWA         | 2581                                                                                                                                                                           | PERFEKT       | 0051 2551 2791                                                                                                                                     |
| OPERA        | 0051 2551 2791                                                                                                                                                                 | PHILCO        | 0051 0301 0691 0701 1111 1181<br>1571 2201 2551 2571 2791 3881                                                                                     |
| OPTIMUS      | 3611                                                                                                                                                                           | PHILEX        | 2801 3881                                                                                                                                          |
| OPTIONICA    | 3661                                                                                                                                                                           | PHILHARMONIC  | 3921                                                                                                                                               |
| ORBIT        | 0051 2551 2791                                                                                                                                                                 | PHILIPS       | 2551 2561 2571 2621 2631 2651<br>2741 2751 2761 2781 2791 2801<br>2811 3601 3891 3931                                                              |
| ORIENT       | 0301                                                                                                                                                                           | PHILIPS (F)   | 0051 2471                                                                                                                                          |
| ORION        | 0051 0121 0131 0141 0151 0301<br>0961 0971 2111 2391 2531 2551<br>2581 2791 3541 3601 3831                                                                                     | PHOCUS        | 3541                                                                                                                                               |
| ORLINE       | 2551 2791                                                                                                                                                                      | PHOENIX       | 0051 1181 2551 2571 2791 3881<br>3911                                                                                                              |
| ORMOND       | 2551 2791                                                                                                                                                                      | PHONOLA       | 0051 2471 2551 2571 2741 2791<br>2801 3911                                                                                                         |
| OSAKI        | 2551 2631 2791 3831 3921                                                                                                                                                       | PILOT         | 2551 2791                                                                                                                                          |
| OSIO         | 2551 2791                                                                                                                                                                      | PIONEER       | 0051 0761 1181 1791 2551 2591<br>2601 2621 2651 2791 3201 3701<br>3871 3881 3891 4071 4081                                                         |
| OSUME        | 2541 2551 2791                                                                                                                                                                 | PIONIER       | 1181                                                                                                                                               |
| OTF          | 0301                                                                                                                                                                           |               |                                                                                                                                                    |
| OTTO VERSAND | 0051 0301 0411 0421 0431 0441<br>0451 0621 0791 0801 1261 1271<br>1281 1331 2021 2371 2481 2491<br>2541 2551 2591 2621 2691 2721<br>2751 2771 2781 2791 3601 3661<br>3891 3921 |               |                                                                                                                                                    |

| Manufacturer    | Control Code(s)                                                                                                                                                                                                                                                                        |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PLANTRON        | 0051 0301 2551 2791 3601 3831                                                                                                                                                                                                                                                          |
| PLAYSONIC       | 3331 3541 3921                                                                                                                                                                                                                                                                         |
| POLAR           | 3081                                                                                                                                                                                                                                                                                   |
| POLICOM         | 2571 2581 2591 2681 2761 3881<br>3891                                                                                                                                                                                                                                                  |
| POPPY           | 0301 3601                                                                                                                                                                                                                                                                              |
| PORTLAND        | 2391 2631                                                                                                                                                                                                                                                                              |
| POWERPOINT      | 3841                                                                                                                                                                                                                                                                                   |
| PRANDONI PRINCE | 0721 1081                                                                                                                                                                                                                                                                              |
| PRANDONI-PRINCE | 2151 3891                                                                                                                                                                                                                                                                              |
| PRECISION       | 3921                                                                                                                                                                                                                                                                                   |
| PREMIER         | 3601 3831                                                                                                                                                                                                                                                                              |
| PRIMA           | 0051 0301 2391 3601 3831                                                                                                                                                                                                                                                               |
| PRINCESS        | 0301 3841                                                                                                                                                                                                                                                                              |
| PRINZ           | 2771 3891                                                                                                                                                                                                                                                                              |
| PROELCO         | 0051                                                                                                                                                                                                                                                                                   |
| PROFEX          | 0301 0801 1111 3601 3881 3891                                                                                                                                                                                                                                                          |
| PROFI           | 3601                                                                                                                                                                                                                                                                                   |
| PROFITRONIC     | 0051 2551 2581 2791                                                                                                                                                                                                                                                                    |
| PROLINE         | 2551 2711 2741 2791                                                                                                                                                                                                                                                                    |
| PROSONIC        | 1181 2551 2631 2791 3541 3911<br>3921                                                                                                                                                                                                                                                  |
| PROTEC          | 0051 0301                                                                                                                                                                                                                                                                              |
| PROTECH         | 2551 2581 2771 3601 3831 3881<br>3921                                                                                                                                                                                                                                                  |
| PROTECT         | 2791                                                                                                                                                                                                                                                                                   |
| PROTON          | 0301 2391 3711                                                                                                                                                                                                                                                                         |
| PROVISION       | 2551 2791 3541                                                                                                                                                                                                                                                                         |
| PULSER          | 0051 0301 2391                                                                                                                                                                                                                                                                         |
| PVISION         | 3851                                                                                                                                                                                                                                                                                   |
| PYE             | 0051 2551 2571 2631 2741 2771<br>2781 2791                                                                                                                                                                                                                                             |
| PYMI            | 0301 3601                                                                                                                                                                                                                                                                              |
| QUASAR          | 3601 3611                                                                                                                                                                                                                                                                              |
| QUELLE          | 0051 0301 0411 0421 0431 0441<br>0451 0471 0501 0621 0871 0981<br>0991 1081 1101 1131 1241 1271<br>1281 1301 1331 1371 1381 1451<br>1471 1521 1661 1671 1901 2311<br>2371 2391 2441 2451 2461 2481<br>2531 2541 2551 2591 2681 2691<br>2721 2751 2771 2781 2791 3601<br>3831 3891 3921 |

| Manufacturer     | Control Code(s)                            |
|------------------|--------------------------------------------|
| QUESTA           | 2541                                       |
| R LINE           | 0051 2551 2791                             |
| RADIALVA         | 2551 2591 2601 2791 3881                   |
| RADIO SHACK      | 2391 2551 2791                             |
| RADIOLA          | 0051 2471 2551 2741 2791 3921              |
| RADIOMARELLI     | 2151 2551 2571 2791                        |
| RADIOSHACK       | 3711                                       |
| RADIOSTONE       | 2791                                       |
| RADIOTONE        | 0051 0301 1181 2551 3601 3831              |
| RADUGA           | 3141                                       |
| RANK ARENA       | 2541                                       |
| RANK/BUSH/MURPHY | 1141                                       |
| RCA              | 2611 2621 2701 2711 3661 3941              |
| REALISTIC        | 3711                                       |
| RECOR            | 2551 2791                                  |
| RECORD           | 0051 3141                                  |
| RECTILIGNE       | 2551 2791                                  |
| REDIFFUSION      | 2541 3891 3901                             |
| REDSTAR          | 2551 2791                                  |
| REFLEX           | 2551 2791                                  |
| REGENTE          | 0301                                       |
| REOC             | 3541                                       |
| REVOX            | 0051 1181 2551 2791                        |
| REVOX/STUDER     | 0051                                       |
| REX              | 0711 0751 0981 1161 1901 2201<br>3831 3881 |
| RFT              | 1161 1181 2551 2571 2791 3831              |
| RHAPSODY         | 3911                                       |
| RICOH            | 2551 2791                                  |
| RINEX            | 3831 3841                                  |
| R-LINE           | 3881                                       |
| RMB              | 2391                                       |
| ROADSTAR         | 0301 2551 2791 3541 3601 3831<br>4171      |
| ROBOTRON         | 2571                                       |
| RODEX            | 2551 2791                                  |
| ROSITA           | 0301                                       |

| Manufacturer  | Control Code(s)                                                                                                                                                           | Manufacturer     | Control Code(s)                                                                                     |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------|
| ROWA          | 0301 3601 3831 3841 3861 3911 3921                                                                                                                                        | SCHNEIDER        | 0051 0161 0171 0301 0861 0941 0981 1161 2471 2481 2491 2551 2621 2741 2771 2791 3541 3881 3891 3921 |
| ROYAL         | 0301 3681                                                                                                                                                                 | SCHNEIDER (F)    | 2471                                                                                                |
| ROYAL LUX     | 1181 2611                                                                                                                                                                 | SCOTLAND         | 3881                                                                                                |
| RUBIN         | 3071 3101 3141                                                                                                                                                            | SCOTT            | 2391 3711 4181                                                                                      |
| RUKOPIR       | 2551 2791                                                                                                                                                                 | SEARS            | 3711                                                                                                |
| SABA          | 0661 0861 1791 1801 1811 1851 1991 2021 2031 2041 2151 2331 2341 2571 2591 2601 2611 2621 2641 2661 2681 2701 2711 3541 3611 3881 3891 3901                               | SEG              | 0301 0471 1111 2391 2541 2551 2581 2771 2791 3531 3541 3601 3831 3881 3911 3921                     |
| SACCS         | 2761                                                                                                                                                                      | SEI              | 2551 2571 2581 2691 2721 2771 2791 3881                                                             |
| SADKO         | 3141                                                                                                                                                                      | SEI-SINUDYNE     | 0051 0701 2551 2571 2581 2691 2721 2791                                                             |
| SAGEM         | 3741                                                                                                                                                                      | SELECO           | 0711 0721 0751 0981 1011 1161 1761 1881 1891 1901 2001 2311 2541 3831 3881                          |
| SAISHO        | 0051 2531 3601 3831 3881 3921                                                                                                                                             | SEMUA            | 2391                                                                                                |
| SAIVOD        | 2551 2791 3531                                                                                                                                                            | SENCORA          | 0301 3601                                                                                           |
| SAKAI         | 3881                                                                                                                                                                      | SENTRA           | 0861 2771 3601                                                                                      |
| SAKURA        | 0301                                                                                                                                                                      | SERINO           | 3661 3911                                                                                           |
| SALORA        | 0631 0641 0741 0791 0811 0921 0991 1001 1041 1051 1131 1391 1471 1491 1501 1521 1541 1821 2771 3721 3881 3891 3901                                                        | SHARP            | 0561 0571 0581 0601 2311 2391 2541 2801 2841 3231 3531 3661 3671 3691 3871 4191                     |
| SALSA         | 2611                                                                                                                                                                      | SHINTOSHI        | 2551 2791                                                                                           |
| SAMBERS       | 1081 1111 1131 2151 2581                                                                                                                                                  | SHIVAKI          | 0051 2551 2631 2791 3711                                                                            |
| SAMPO         | 2391                                                                                                                                                                      | SHOW             | 0301 3601 3831 3841                                                                                 |
| SAMSUNG       | 0051 0161 0181 0261 0301 1131 1181 1661 2391 2401 2551 2791 3211 3601 3661 3711 3721 3741 3751 3761 3771 3781 3791 3811 3821 3831 3861 3881 3911 3921 4091 4101 4111 4121 | SIAREM           | 0701 2161 2571 2581 3881                                                                            |
| SAMSUX        | 2391                                                                                                                                                                      | SICATEL          | 1181 1551                                                                                           |
| SANDRA        | 3911 3921                                                                                                                                                                 | SICATEL-FRANCE-S | 1551                                                                                                |
| SANELA        | 2761                                                                                                                                                                      | SIEMENS          | 0051 1241 1251 1261 1271 1281 1291 1301 1331 2291 2391 2441 2451 2551 2751 2781 2791 3891           |
| SANKY         | 2391                                                                                                                                                                      | SIERA            | 2551 2741 2791 3861                                                                                 |
| SANSUI        | 0051 0301 2391 2551 2791                                                                                                                                                  | SIERRA           | 0051 1181 2471                                                                                      |
| SANTON        | 3601                                                                                                                                                                      | SILMA            | 0051                                                                                                |
| SANYO         | 0301 1161 1181 1671 2311 2411 2531 2541 2551 2791 3601 3701 3721 3881 3911 3921                                                                                           | SILVA            | 0301 2551 2791 3891 3911                                                                            |
| SAVE          | 2551 2791                                                                                                                                                                 | SILVER           | 2541 2551 2791 3331 3881 3891                                                                       |
| SBR           | 0051 2471 2551 2561 2741 2791 2801                                                                                                                                        | SINGER           | 0051 0301 0941 2011 2191 2201 2551 2571 2581 2611 2791 3601 3881                                    |
| SCHAUB LORENZ | 0991 1051 2631 2771 3541 3681 3851 3891 3901                                                                                                                              | SINOTEC          | 3681 3841                                                                                           |
|               |                                                                                                                                                                           | SINUDYNE         | 0051 0471 0721 0941 0981 2111 2551 2571 2581 2691 2721 2771                                         |

| Manufacturer   | Control Code(s)                                        |
|----------------|--------------------------------------------------------|
|                | 2791 3681 3881 3891                                    |
| SKY            | 2551 2791 3711                                         |
| SMARAGD        | 0331                                                   |
| SNYDER         | 0051                                                   |
| SOKOL          | 3111 3141                                              |
| SOLAVOX        | 0861 2551 2791 3881 3891 3901                          |
| SONIKO         | 2551 2791                                              |
| SONITRON       | 1181 3721 3921                                         |
| SONNECLAIR     | 2551 2791                                              |
| SONOKO         | 0051 0301 2551 2791 3601 3831 3921                     |
| SONOLOR        | 0771 0811 0991 2011 2691 2721 3721 3881 3891 3901      |
| SONTEC         | 0051 1181 2551 2791 3601                               |
| SONY           | 2531 2541 2551 2581 2691 2721 2731 2791 3661 3701 3801 |
| SOUND & VISION | 2551 2581 2631 2791                                    |
| SOUNDESIGN     | 2391 3711                                              |
| SOUNDMASTER    | 0301                                                   |
| SOUNDWAVE      | 2551 2791 3331                                         |
| SPECTRA        | 3601                                                   |
| SPECTRICIAN    | 0051 2391                                              |
| SSANGYONG      | 3601                                                   |
| STAKSONIC      | 3601                                                   |
| STANDARD       | 0301 2551 2631 2791 3601 3921                          |
| STARLITE       | 0301 2551 2791 3601 3831 3881                          |
| STARLUX        | 0301                                                   |
| STERN          | 0711 0751 0981 1161 1901 3831 3881                     |
| STRATO         | 2551 2791 3601 3831                                    |
| STRONG         | 3531                                                   |
| STYLANDIA      | 3921                                                   |
| SUNIC LINE     | 2551 2791                                              |
| SUNKAI         | 2551 2791                                              |
| SUNSTAR        | 0301 2551 2791 3601 3831                               |
| SUNWOOD        | 0051 0301 2551 2791 3601                               |
| SUPERLA        | 3911 3921                                              |
| SUPersonic     | 3601 3721 3831 3841                                    |
| SUPERTEC       | 0301                                                   |

| Manufacturer | Control Code(s)                                                  |
|--------------|------------------------------------------------------------------|
| SUPERTECH    | 0301 0871 2551 2791 3601 3911                                    |
| SUPERVISION  | 3831 3841                                                        |
| SUPRA        | 0301 2631 3601 3711                                              |
| SUPREMACY    | 2391                                                             |
| SUSUMU       | 2601 2611                                                        |
| SUTRON       | 0301 3601                                                        |
| SVA          | 3831 3841                                                        |
| SVASA        | 3721 3831 3841                                                   |
| SYC LINE     | 0301                                                             |
| SYDNEY       | 3911 3921                                                        |
| SYLVANIA     | 0051                                                             |
| SYMPHONIC    | 2391                                                             |
| SYSLINE      | 2551 2791                                                        |
| SYTONG       | 3911                                                             |
| TANDBERG     | 0981 1191 2591 3881 3891                                         |
| TANDY        | 3661 3881 3921                                                   |
| TASHIKO      | 2321 2541 2561 3701 3881 3911 3921                               |
| TATUNG       | 0051 0191 2531 2551 2791 3851 3921                               |
| TCM          | 3541                                                             |
| TEAC         | 2551 2771 2791 3541 3601 3701 3711 3831 3841 3921                |
| TEAK         | 0301                                                             |
| TEC          | 0301 0751 0871 0981 1721 2551 2611 2661 2791 3601 3881 3891 3921 |
| TECH LINE    | 2551 2791 3531                                                   |
| TECHNICS     | 0051 0351 3611                                                   |
| TECHNIKA     | 4201                                                             |
| TECHNILAND   | 0051                                                             |
| TECHNISAT    | 1771 2551 2791 3881                                              |
| TECHNISSEN   | 3541                                                             |
| TECHNOL      | 0301                                                             |
| TECHNOL ACE  | 3831 3841 3911                                                   |
| TECHWOOD     | 3481 3531 3531                                                   |
| TECNISON     | 0301                                                             |
| TEDELEX      | 0301 2551 2791 3601 3681 3721 3841 3861 3921                     |
| TEIRON       | 3601                                                             |

| Manufacturer | Control Code(s)                                                                                                                               | Manufacturer     | Control Code(s)                                                                                              |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------|
| TEK          | 3601 3841                                                                                                                                     | THORN-FERGUSON   | 0051 0251 0981 1591 2021 2131<br>2171 2351 2411 2591 2611 2761<br>2801 3891                                  |
| TEKNANT      | 0051 0301                                                                                                                                     | TMK              | 3711                                                                                                         |
| TEKNIKA      | 2391 3811                                                                                                                                     | TOBO             | 0301                                                                                                         |
| TEKON        | 0301                                                                                                                                          | TOKAI            | 0051 2551 2631 2791 3601 3881<br>3921                                                                        |
| TELEAVIA     | 1991 2121 2341 2591 2601 2621<br>2641 2671 2681                                                                                               | TOKYO            | 3911                                                                                                         |
| TELECOR      | 2551 2791 3881 3921                                                                                                                           | TONGTEL          | 3861                                                                                                         |
| TELEFAC      | 0301                                                                                                                                          | TOP SHOW         | 3601 3831 3841                                                                                               |
| TELEFUNKEN   | 1701 1851 1911 1951 1961 1971<br>2021 2041 2091 2431 2461 2551<br>2591 2601 2611 2621 2641 2661<br>2681 2711 2791 3541 3841 3861              | TOSHIBA          | 0001 0011 0021 0031 0041 1141<br>2541 2581 2591 2671 2751 3241<br>3531 3541 3601 3611 3741 3811<br>3841 3921 |
| TELEFUSION   | 2551 2791                                                                                                                                     | TOSONIC          | 2391                                                                                                         |
| TELEGAZI     | 2551 2791 3831 3881                                                                                                                           | TOTEVISION       | 2391                                                                                                         |
| TELEMEISTER  | 2551 2791                                                                                                                                     | TOWADA           | 2581 2771 3921                                                                                               |
| TELEOPTA     | 0301                                                                                                                                          | TOYODA           | 3601 3831                                                                                                    |
| TELESONIC    | 2551 2791                                                                                                                                     | TRAKTON          | 3601 3831 3921                                                                                               |
| TELESTAR     | 0301 2551 2791 3601                                                                                                                           | TRANS CONTINENS  | 2551 2791                                                                                                    |
| TELETECH     | 0301 2551 2791 3601                                                                                                                           | TRANS-CONTINENTS | 3921                                                                                                         |
| TELETON      | 0751 1901 2541 2771 3881 3921                                                                                                                 | TRANSONIC        | 2551 2791 3601 3831 3841 3861                                                                                |
| TELEVIDEON   | 3881 3911                                                                                                                                     | TRANSTEC         | 3911                                                                                                         |
| TELEVIEW     | 2551 2791                                                                                                                                     | TREVI            | 0301                                                                                                         |
| TELEVISO     | 2011                                                                                                                                          | TRIAD            | 0051 2551 2791 3601                                                                                          |
| TELEXA       | 2581                                                                                                                                          | TRIDENT          | 3921                                                                                                         |
| TEMPEST      | 0301 2551 2791 3601 3831                                                                                                                      | TRILUX           | 0051                                                                                                         |
| TENNESSEE    | 2551 2791                                                                                                                                     | TRISTAR          | 2801 3831                                                                                                    |
| TENSAI       | 0051 0301 0621 1631 2551 2631<br>2791 3331 3601 3881 3921                                                                                     | TRIUMPH          | 2551 2791                                                                                                    |
| TENSON       | 0301 3601                                                                                                                                     | TRIVISION        | 0301                                                                                                         |
| TESLA        | 0051                                                                                                                                          | TVTEXT 95        | 2791                                                                                                         |
| TESLA ORAVA  | 0051                                                                                                                                          | UHER             | 0051 1181 1901 2551 2631 2791                                                                                |
| TEVION       | 0051 2551 2791 3541                                                                                                                           | ULTRAFOX         | 2201                                                                                                         |
| TEXET        | 2631 3601 3911 3921                                                                                                                           | ULTRAVOX         | 0701 2191 2201 2551 2571 2581<br>2631 2791 3881 3911                                                         |
| THOMAS       | 0051 0301 2391                                                                                                                                | UMA              | 0051                                                                                                         |
| THOMSON      | 2551 2591 2601 2611 2621 2641<br>2661 2671 2681 2701 2711 2771<br>2791 3041 3911 3941                                                         | UNIC LINE        | 2551 2771 2791                                                                                               |
| THORN        | 0041 0051 0251 0741 0861 0921<br>1081 1591 1971 2131 2171 2311<br>2351 2411 2471 2551 2591 2611<br>2621 2631 2691 2721 2761 2791<br>2801 3891 | UNIMOR           | 0051                                                                                                         |
|              |                                                                                                                                               | UNITED           | 2551 2791 3331 3541 3861                                                                                     |
|              |                                                                                                                                               | UNIVERSAL        | 3541                                                                                                         |

| Manufacturer  | Control Code(s)                                                                                                                                         |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| UNIVERSUM     | 0051 0301 1181 1281 1411 1471<br>1541 1681 1901 2441 2531 2541<br>2551 2591 2681 2691 2721 2771<br>2781 2791 3531 3601 3701 3741<br>3831 3881 3891 3921 |
| UNIVOX        | 2551 2571 2761 2791 3881                                                                                                                                |
| URANYA        | 0301                                                                                                                                                    |
| UTAX          | 3881                                                                                                                                                    |
| V7 VIDEOSEVEN | 3711                                                                                                                                                    |
| VANGUARD      | 0301                                                                                                                                                    |
| VECO          | 0301                                                                                                                                                    |
| VESTEL        | 0051 0061 1681 2551 2791 3531<br>3881 3921                                                                                                              |
| VEXA          | 0051 0301 2551 2791 3601                                                                                                                                |
| VICTOR        | 3691                                                                                                                                                    |
| VIDEO SYSTEM  | 0051 2551 2791                                                                                                                                          |
| VIDEOLOGIC    | 3911                                                                                                                                                    |
| VIDEOLOGIQUE  | 3911 3921                                                                                                                                               |
| VIDEOTECHNIC  | 2631 3911 3921                                                                                                                                          |
| VIDEOTON      | 0631 0651 0961 1571 1791 2081<br>2121 3881                                                                                                              |
| VIDIKRON      | 2581                                                                                                                                                    |
| VIDION        | 0301                                                                                                                                                    |
| VIDTECH       | 2541 3711                                                                                                                                               |
| VISIOLA       | 3911                                                                                                                                                    |
| VISION        | 0301 2551 2791 3831 3921                                                                                                                                |
| VISON         | 0051                                                                                                                                                    |
| VISTAR        | 3891                                                                                                                                                    |
| VITYAZ        | 3141                                                                                                                                                    |
| VIZIO         | 4131                                                                                                                                                    |
| VORTEC        | 0051 2551 2791                                                                                                                                          |
| VOXSON        | 0051 0721 2551 2571 2791 3711<br>3881                                                                                                                   |

| Manufacturer       | Control Code(s)                                      |
|--------------------|------------------------------------------------------|
| WALTHAM            | 0631 0961 2121 2551 2591 2601<br>2671 2791 3881 3921 |
| WARD'S             | 0051                                                 |
| WATSON             | 0051 0301 2551 2791 3601 3881                        |
| WATT RADIO         | 0701 1571 2581 2771 3881 3911                        |
| WEGA               | 2221 2541 2551 2571 2791                             |
| WEGAVOX            | 0051 0301 1571 2551 2791 3601                        |
| WELLTECH           | 3541                                                 |
| WELTBlick          | 0051 2551 2791 3921                                  |
| WESTON             | 2551 2791                                            |
| WHARFEDALE         | 0051 2551 2791 3841 4211                             |
| WHITE WESTINGHOUSE | 0051 1571 2551 2791 3911                             |
| WINSTON            | 0051 0301                                            |
| WINTEL             | 3541                                                 |
| WINTERNITZ         | 0301                                                 |
| WORLDVIEW          | 0051 0301                                            |
| XLOGIC             | 3841                                                 |
| XRYPTON            | 2551 2791                                            |
| X-VIEW             | 3851                                                 |
| YAMAHA             | 3611                                                 |
| YAMISHI            | 2551 2791 3921                                       |
| YOKAN              | 2551 2791                                            |
| YOKO               | 0051 0301 1181 2201 2551 2791<br>3601 3831 3911 3921 |
| YORK               | 0051                                                 |
| ZANUSSI            | 0721 1901 3921                                       |
| ZENITH             | 0051                                                 |

## 8. Symbols and Icons

### Symbols on HDT-610R

| Symbol | Meaning                                                                                                                                                                         |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | The product complies with applicable EU directives.                                                                                                                             |
|        | Do not dispose of with normal household waste.                                                                                                                                  |
|        | The equipment has additional insulation and does not need to be earthed.                                                                                                        |
|        | Alternating Current.                                                                                                                                                            |
|        | USB connector.                                                                                                                                                                  |
|        | <b>HDMI</b><br>HIGH-DEFINITION MULTIMEDIA INTERFACE<br><br>HDMI logo<br><br>This logo tells you that the receiver incorporates High-Definition Multimedia Interface technology. |
|        | <b>DOLBY</b><br>DIGITAL PLUS<br><br><b>Dolby Digital Plus logo</b>                                                                                                              |
|        | <b>Freeview+ HD logo</b><br><br>This logo tells you that this equipment is capable of receiving free-to-air digital terrestrial signals in the UK and has built in recorder.    |
|        | <b>HD logo</b><br><br>This logo tells you the receiver is capable of receiving and displaying HD content.                                                                       |

## Information Icons

| Icon | When displayed (programme guide or info bar)                                                                                                                  |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Contains one or more subtitle components.                                                                                                                     |
|      | Does not contain any subtitles.                                                                                                                               |
|      | Contains a Dolby Digital Plus audio component.                                                                                                                |
|      | Contains a Dolby Digital audio component, but not Dolby Digital Plus.                                                                                         |
|      | Contains an Audio Description component.                                                                                                                      |
|      | Does not contain an Audio Description component.                                                                                                              |
|      | Contains more than one audio language component.                                                                                                              |
|      | Contains only one audio language component.                                                                                                                   |
|      | Broadcast in more than one discreet part with one or more other programmes between the parts.                                                                 |
|      | The current output resolution on HDMI is 576p .                                                                                                               |
|      | The current output resolution on HDMI is 720p .                                                                                                               |
|      | The current output resolution on HDMI is 1080i .                                                                                                              |
|      | The current output resolution on HDMI is 1080p .                                                                                                              |
|      | The programme is broadcast in SD. An HD version of the programme is also available at the same, or at an earlier, or at a later, time on a different channel. |
|      | Programme has an associated recommendation.                                                                                                                   |
|      | This is a radio service (audio only).                                                                                                                         |
|      | This is a text only (i.e. MHEG) service.                                                                                                                      |
|      | A future recording has been scheduled for this programme.                                                                                                     |
|      | This programme is currently being recorded.                                                                                                                   |

|  |                                                                                                             |
|--|-------------------------------------------------------------------------------------------------------------|
|  | A Reminder has been set for this programme.                                                                 |
|  | Channel N/A.                                                                                                |
|  | This is a TV service (audio and video).                                                                     |
|  | This recording is subject to parental guidance.                                                             |
|  | This recording is locked<br>or<br>This channel is locked                                                    |
|  | This recording has not been viewed (or has had its <i>New status</i> restored after viewing – see page 34). |
|  | This recording was not completed successfully.                                                              |
|  | This event is broadcast in HD (720p, 1080i, or 1080p).                                                      |
|  | This programme is part of a series.                                                                         |
|  | Text service available on this channel.                                                                     |
|  | Text service unavailable on this channel.                                                                   |

You can register your product and receive the latest news on updates and support by visiting us at:

**www.myechostar.com**

Customer Helpline: 0845 123 3003

Follow EchoStar on [www.twitter.com/myechostar](http://www.twitter.com/myechostar)  
and [www.facebook.com/myechostar](http://www.facebook.com/myechostar)

For further information about Freeview,  
please go to [www.freeview.co.uk](http://www.freeview.co.uk)

Manufactured under license from Dolby Laboratories.  
Dolby and the double-D symbol are trademarks of Dolby laboratories.

HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

The FREEVIEW+HD words and logos are trademarks of DTV Services Ltd and are used under license. © DTV Services Ltd. The Freeview service is subject to coverage. An aerial upgrade may be required.

All other brand and product names are or may be trademarks of, and are used to identify products or services of, their respective owners.

Copyright © 2012 EchoStar Technologies L.L.C.

EchoStar Europe, Beckside Design Centre, Millennium Business Park,  
Station Road, Steeton, Keighley, West Yorkshire BD20 6QW.

**ECHOSTAR**

**Part No: 191184**